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December

Galaxy

1965

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December 1965 60¢

# Galaxy®

THE MERCURYMEN  
by C. C. MacAPP

THE WARRIORS OF LIGHT by ROBERT SILVERBERG  
LAUGH ALONG WITH FRANZ by NORMAN KAGAN  
WILLY LEY, ALGIS BUDRYS AND MANY OTHERS



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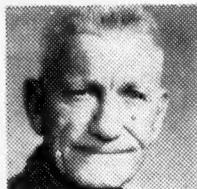
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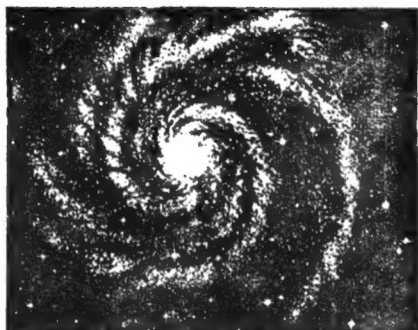
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# Galaxy

## MAGAZINE

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# TO THE STARS

**W**hen Hal Clement was a Boy Scout patrol leader, which is several decades ago, one of the youngest Scouts in his troop was an under-age cub named Bob Enzmann. He was a science-fiction reader, of course. If he hadn't been, Hal Clement was, and would have converted him. He liked to read stories about the conquest of space — in those days of the 30s, a fantastic subject, which most of the wise adult world was quite ready to dismiss without a thought.

But time passes, and in the couple of decades since that time Robert Enzmann grew up, studied, traveled, learned . . . and began to do something about conquering space for himself. He acquired degrees in geology, physics and engineering. He parachuted three times onto the Greenland ice cap; he lived for half a year at a time, with only his rifle to provide his meat and an occasional contact with a native for company, in the last wildernesses of Africa. Now he makes his home in that lesser jungle around the city of Boston, and what he does with

his time now is design spaceships.

By "spaceships", Dr. Robert Enzmann does not mean *Mariner IV* or even *Apollo*. By "spaceships" he means what we mean by spaceships — you get into it, you take off, you look around and head for the nearest interesting piece of planetary real estate, and you get there in finite time, with enough reserve of fuel and supplies to look around, land, explore, take off and come back . . . or go on to some other place.

You will be hearing more of Dr. Robert Enzmann. You may have heard more already, as a matter of fact, since while this issue of *Galaxy* is on the stands there will be a conference on planetology held in New York in which Enzmann will take a leading part, and if it doesn't make newspaper stories we will be much surprised. For what Enzmann is after is not merely a research program or a blueprint for future decades. What he wants to do is build this ship — maneuverable, huge, nuclear-fueled — and to start doing it *now*.

How immediate is "now"?



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Well, says Dr. Enzmann, there are a few engineering problems that need to be worked out. Not basic science problems — they've all been solved — some as recently as within the past ninety days. But there is the organizational problem of assembling the skills, the tools and the raw materials; the technical problem of testing and linking them; and above all the financial problem of raising the funds necessary for what is, after all, not quite as simple a project as building a new city hall. The price tag would be something like two and a half billion dollars — for the first one. Second and later ships would come a little cheaper. And the time?

Twenty years from start to completion is a safe and easy schedule, says Enzmann; and if we got started right away there should be no difficulty in completing it in five.

In other words, if Enzmann is right — and an impressive number of people are coming to think he is — by the time the present program calls for manned landings on the moon, we could have a ship built that could make the round-trip to Pluto in a matter of a few weeks . . . and that could keep right on going to the stars.

To be sure, the technology that makes this sort of space-ship possible is something new and vast. Much of it represents recent breakthroughs in a number of fields, and quite a lot of it is classified. It is even possible that difficulties may turn up in the engineering which will change the picture, perhaps radically. Fusion power stations looked a lot easier in 1949 than they did in 1959, and if they have recently begun to look a little easier again it is by virtue of considerable knowledge, attained at considerable cost, that did not exist in those early optimistic days.

But it is also sure that our present space hardware has got to be a dead end. We can with great difficulty and at immense cost put together a plumber's nightmare which will pump liquid fuels into a chamber, burn them off and lumberingly project itself into orbit; but no sensible man regards that solution to space travel as economical or elegant.

Enzmann's ship may not be the last word, either. But it is parsecs beyond anything that now exists outside the pages of a science-fiction magazine . . . and every sign indicates that we can start building it now.

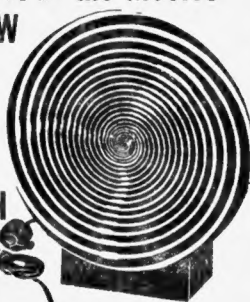
—FREDERIK POHL

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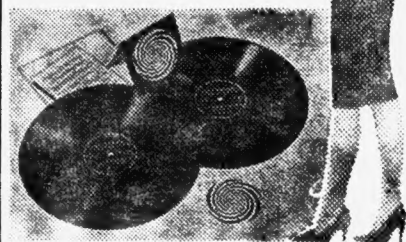


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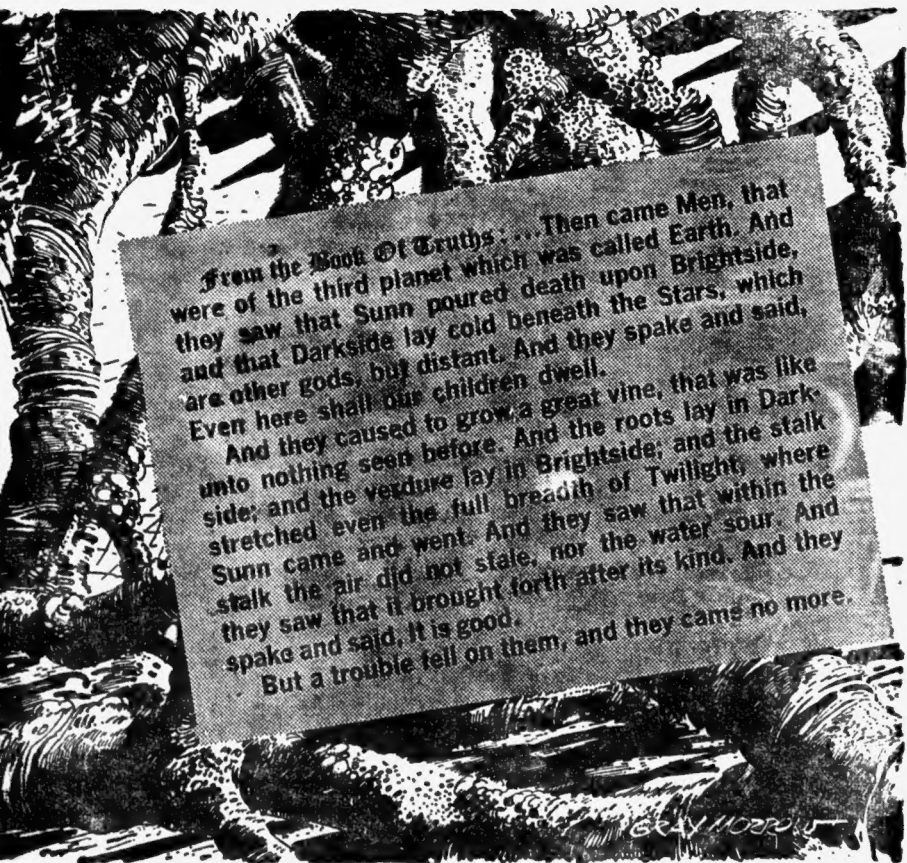


# The Mercurymen

I

**T**em was many kilostrides  
rootward from the last set-  
tlement, in a part of the stalk  
that was not planted nor grazed

because nearly half the diameter  
was filled with icy water and the  
air was cold. Nevertheless, it was  
not too cold for fish nor for



From the Book Of Truths: ...Then came Men, that were of the third planet which was called Earth. And they saw that Sunn poured death upon Brightside, and that Darkside lay cold beneath the Stars, which are other gods, but distant. And they spake and said, Even here shall our children dwell.

And they caused to grow a great vine, that was like unto nothing seen before. And the roots lay in Dark-side; and the verdure lay in Brightside; and the stalk stretched even the full breadth of Twilight, where Sunn came and went. And they saw that within the stalk the air did not stale, nor the water sour. And they saw that it brought forth after its kind. And they spake and said, It is good.

But a trouble fell on them, and they came no more.

by C. C. MacAPP

Illustrated by MORROW

*Their remote ancestors had conquered Mercury — and now the hot planet was ready to begin conquering them!*

some of the quadrupeds, and he loved to come here when he had free time.

He lay concealed in the throat-like constriction between

stalk sections. He was watching a wild tomcat fishing.

The luminous moss grew feeb-

ly here, and he could barely make out the cat's dark form inching along the giant fronds at the water's edge. He wondered why tomcats would come this far (and even farther, he knew) when, in warmer but still unsettled parts of the vine, there were lizards and mice and birds to hunt. Maybe they liked the dim light and the solitude, and the vastness of the sections. Personally, he found the size of the sections a little frightening. The one before him was a good two hundred strides in diameter, and over half a kilostride long.

Now the cat was out of sight entirely, but he kept his eyes on the spot where he'd seen it last. There were no bird songs here; no sound at all except a faint trickling of water somewhere. He pulled his goatskin hood closer about his cheeks, and waited.

There was a leap and a splashing. Then the cat's dark form went bounding up the steep wall. He caught just one glint of silver at its head as it disappeared into some hidden cavity. Presently he heard eating sounds.

After a while he gathered himself, squirmed free of the bulbous growths which, legend said, would swell to an airtight seal in case the section were seriously punctured, and picked a way back along the near-vertical side of the next section. He plucked

a vine-fruit, but it was tart and he only swallowed a few bites; they seldom ripened this far rootward. He thought he might do a little hand-fishing himself farther along, where it was warmer. But then, he ought to be getting back.

The kilostrides passed. The sections were smaller, with much less water in them so he could walk nearer the bottom of the curve. The luminosity brightened. He reached sections planted to rice; then, finally, one where grass grew almost halfway up the circumference. He smelled goats ahead. At the next section-joint he had to let himself through a netting.

As he skirted the grazing animals, the herder, a young man a few orbits older than he, called out, "You better hustle, idler! The Elders have been looking for you!"

Tem grunted an acknowledgment and continued his casual pace. As First Son of the Chief, he didn't feel he should let goat-herders hasten him. Nevertheless, when he was out of sight he walked faster. He couldn't imagine why the Elders would want him.

The first huts came into sight. A little later a band of children spotted him and came running, babbling and shrieking, each vying to be bearer of the news. "Tem! The Chief is dying!"



**T**hey'd already bled the Chief and given him fermented rice, but even so, his face was set against the agony and his eyes were dull. It was the sickness that strikes in the right side of the belly. He raised his hand feebly and took Tem's. His voice was weak, but calm. "I affirm that you are my true First Son. I invoke the Law of the Migration." He let his hand drop and closed his eyes against the pain.

Tem knelt, trying to find words.

How was this possible? The strongest and wisest of the vine . . . hardly into middle age . . . He looked around at the Elders, wanting someone to tell him it wasn't so; that this was some cryptic charade, and that his father would throw off the act any instant and bound to his feet with a guffaw. But he recognized the Conclave of Death. Besides the Elders, none of the vine was present except six other first sons who were older than Tem but within the age limits for migration.

One of those, a man named Buld, scowled and said harshly, "Why does he not disown this stripling, so we can elect a real Leader?"

The dying man's face only tightened more, but one of the Elders said, "Do not speak blasphemy!" Each of the Elders took one step forward, signifying their

intention of enforcing the Law if necessary. Buld looked sullen, but said no more.

Numbly, Tem got to his feet and stood at his father's head, as the Conclave demanded. He wished he could leave to find his mother and comfort her, but of course he could not; nor could she join the Conclave.

*From the Book Of Truths:  
And within the menagerie, these things shall ye take, lest the new vine know them not: the fruits and the grains, and the fishes that swim and the fowls that fly, and the things that creep, and the tiny things and the things that suckle their young . . .*

## II

**S**ince this was a season when the sun was already retreating Brightward (everyone kept looking apprehensively at the corona above the horizon), the migration could start as soon as it was ready.

Tem had been Outside before, of course, as part of his training, but he'd only left the lock and walked a few steps on the gravel above the vine, and it hadn't seemed real. Now, ostensibly overseeing preparations (though the Elders' who'd been on their own migration to this vine, were the actual experts), he had to

stay out here for twenty or thirty kilopulses at a time, and Outside was all too real.

He was glad the suitmakers had done a good job on his suit. The face part was of the clearest rubber possible, with very few bubbles or white spots of undried vine latex, and the fit was good. It was awkward moving, with the weight of the backpack full of air-freshening fungus pulling him off balance. But they'd assured him he'd get used to that. They'd also promised the pleats at knee and elbow joints would stop sticking together when the latex cured a little more.

He kept tilting his helmet to look up at the Stars, though it made him ill to think of such emptiness above him. He could believe the Stars were fantastically distant, all right, but were they really Gods? And if so, were they watching?

For that matter, he'd never been quite clear in his mind about the relation between sun and Sunn. Was the sun Sunn's weapon? Or his dwelling? Or what? Of course Sunn could probably travel around anywhere invisibly, even to Darkside; though the Law didn't say; and asking such questions got you admonitions instead of answers.

He turned and stared the way they'd be going. That was another confusing thing. The Law said

you must go in the direction of your right hand as you stood facing Brightward. Clearly there was distance there, and ground to walk on, but was it a direction? One was used to two directions — rootward and leafward. Or, to use other terms, darkward and brightward. Anyway, they had to go in this new 'direction', across an unknown number of vines, until they found an uninhabited one fit to settle. The guess was that it would be as much as four hundred kilostrides. They could go that far before the sun began to return, if they didn't lag.

He saw an Elder frowning at him, and turned his attention to the work.

They were bleeding air out of the lock now, into big rubber bags; carrying those over and squeezing the air into the menagerie. Big as that was — with a dozen wide carts under it — the animals, and the human couple who'd live in it to care for them, would be cramped. Most of the space was filled with the air-freshening fungus. Still, they'd be more comfortable than he and the others, living in suits with only an occasional visit into the resters.

The menagerie was the biggest airbag, by far. There were smaller one; air fresheners, the resters, and simple bags of spare air.

There were waterbags and bags of food, and bags of liquid vine latex for future use. There were two carts loaded with great sheets of rubber, already cured, for constructing the lock when they found their vine. There were loads of rope, and the precious tools. And seeds, of course. There was no assurance *what* would have spread to a new vine.

The lock was sagging now, into the slanting tunnel that let it meet the vine at a good angle. It was time for a shift to go in. He walked over and helped push on the big end-plug until it gave way and the remaining air gushed out. They trooped in, replaced the plug and held it hard against its seating. Someone opened the valve from the vine, and the lock began to fill again. Soon Tem's suit lost its rigidity and hung upon him, and the end plug would stay in place by itself. They pushed open the inner plug and entered the vine, and filed down the ramp that had been built up to the lock. It was good to be able to look in any direction and see solid walls around him again. He began unlacing his suit.

He met people, all wanting to stop and talk, and excused himself politely. He was headed downvine toward his home, but there was another stop to make first.

He reached the right section

and paused in the throat, in sudden despair. It was strange, he thought, how it took things a while to hit. Slowly, he started down and to the right, until he was walking in the grass beside the narrow lake. Near midsection he turned right, through a fruit orchard to where some huts nestled on the curve of the vine.

Neena's father sat there, turning a roast over a small fire. He looked at Tem silently for a few pulses, then said, "I'm sorry, lad, but you both knew what to expect."

Tem didn't answer that. He said, "Could I see her?"

Her father nodded rootward. "Two sections down, in the rice."

She must have been expecting him, for she was working near this end. He walked out and began gathering handfuls of the tall grain. It was not censorable for them to work together and talk.

They worked silently for a while, then he said, "I could refuse to go. But then I'd be in Bottom Caste, and so would you if you married me. We never really talked about it, did we?"

She was calmer than he expected. "No, we didn't. I suppose you'll take up with my sister. I've seen the way you look at her."

He flushed. "I do not! She's



four or five orbits older than I am!"

She shrugged. "Anyway, I guess you don't really care much about me, or you'd find some way to take me along."

He frowned at her. "What kind of talk is that? Even if we dared defy the Law, do you think the Elders are blind?"

She glanced around and said in a low voice, "I'm the same size as my sister, and we look alike. I don't think any of the Elders would know the difference if I were in her suit."

He was so shocked he cringed, half expecting Sunn to send a meteor and destroy the section. Slowly, he straightened. Really — in all his experience — Sunn had never punished anyone, preachments notwithstanding. It was always the Elders who handed out punishment. And there'd be no way *they* could pursue the migration. He said unsteadily, "But your sister . . ."

"I've already talked to her," she said, "and she's willing. She's afraid to go anyway."

### III

The Elders gave the faint-hearted no time to rebel. The lock's inner plug closed behind the migration like the cutting of an umbilical cord. Thirty-nine men and forty-three women

— all the healthy firstborn of the vine whose ages fell between seventy and one hundred orbits — turned and gazed across the bleak country.

The hardest thing to get used to, Tem decided (after the suits and the awful emptiness above them) was the harsh lighting. One compressed glare from the sun's corona lit the uneven rock, leaving shadows so sharp-edged and black it was hard not to think they were bottomless holes. The stars, dazzling as they were, helped very little to light those shadows.

Even where it was illuminated, the ground was frightening. Gravel extended for a few strides, where the vine's growth had shattered the rock; but beyond lay the undulating plain, punctuated here and there by hills or ringwalls, dotted with loose rocks from the latter.

Another disturbing thing was the silence. He could see lips move, see people clap their gloved hands together to soften the gloves, and strained his ears for the sounds. But inside his suit he could hear too much — his harsh breath, his blood pumping.

He could see bitterness in some of the others' faces. The Law did seem inequitable, requiring that the first generation born in a new vine supply the migration, on the death of the first Chief. Why

couldn't older vines send the migrations, if migrations were necessary? There was some vague principle that a colony too long in a vine might grow soft, but it seemed to him that a generation or two might go by without that, so that a vine could better afford to equip a migration. And why such long migrations? If fewer vanguard vines had to send them out, they wouldn't have to leapfrog so far to find empty vines.

He could sympathize with the bitterness, for he himself was feeling for the first time — really feeling it inside — how cruelly they'd been thrust out; how unreachable the old vine was now. What brought it home to him was the way he'd parted from his mother. She'd come to the lock with a last present — a newly braided belt and scabbard with his father's knife — and she'd helped him on with his suit. They hadn't said much. He'd been almost gruff, because he was afraid she'd embrace him with everyone looking and all. She'd surely known how he felt, and she hadn't done it; but he wouldn't soon forget the look in her eyes or the little gesture of her hands as he looked back for the last time. If he'd really realized it was the last time — that he'd never hear of her again, or know when she died — he'd have certainly embraced her.

He decided they'd stood here feeling sorry for themselves long enough. He gestured to the team he'd chosen, and bent to pick up a tow-rope of the menagerie. The others added their weight to his and the menagerie began to move.

When the team was pulling together well, he turned his place over to another man and walked back along the column. The other carts were moving. One man on a tow-rope was limping, and gestured that his suit was chafing him badly. Tem transferred him to a scouting squad that was to move a little ahead. At least the man could walk gingerly, with no load to pull.

He looked back to make sure there were no stragglers, then walked forward along the column.

They were able to travel fairly straight, with only short halts to rest, for what he judged was ten kilopulses (though one's heart was a poor chronometer under this exertion). Then, glancing back, he saw there was some disturbance in the column. He started toward it.

The man he'd left in charge of that unit hurried to meet him, and they touched helmets so the small metal contact-plates would carry their voices. The man said, "One of the women insists she has to visit the restor."

Tem walked back with him and discovered that the miscreant was Neena. He halted, dismayed, then slowly advanced and touched helmets with her. "You must have been drinking water! Didn't your sister tell you not to until you really needed it?"

"I was thirsty," she pouted, "and I didn't think . . ."

He looked at her in exasperation. "Can't you wait until we camp?"

"No!"

He spun away from her, growling to himself. A fine start! The vine still in sight, and he had to make camp. Sullenly, he signaled the order, and the column closed up to the tight pattern that would conserve warmth. At least, they did it efficiently — all of them (except Neena) remembered their teaching.

Buld took the opportunity to criticize his leadership.

Before they started on, he delivered a lecture in pantomime; and he kept them moving faster than he might have on the next jaunt. After a while he could see they were very tired and legitimately needed to camp. But by this time a large ringwall was looming ahead. He decided to keep on and camp just to brightward of it.

Presently a long line of other objects poked above the horizon.

He knew they were the leafages, at section-joints, of a vine. He hoped the lock, if any, wouldn't be in sight. There was danger that individuals might sneak away and try to enter a strange vine, even at the cost of becoming Bottom Caste among its inhabitants. That was less likely now, of course, than it would be later when people were really discouraged or sick.

However, when the column was already skirting the ring-wall, he saw a chasm in their path, stretching from the ring-wall brightward. This was trouble.

#### IV

He turned over responsibility for making camp to a man named Bannow, passed back along the column to see that things were all right and to exchange glances with Neena, then headed out to the ringwall.

He climbed slowly, with frequent rests, because one was warned that if he used air too fast he might grow foolish without realizing it. The fungus should be doing well, though, with the light from the corona falling directly on his backpack.

Long before he got to the top he could see that the chasm went as far as the horizon, but he kept climbing because he wanted to



see the country ahead. Again, he had the experience of sudden realization. One moment, the scene was like a painting; then, abruptly, he felt the vastness.

The ringwall was perhaps twenty kilostrides across. Inside, it was hollow just as he'd heard them described. It was dark in there, the light from the corona just hitting the top of the far wall, but as his eyes adjusted he could see by Starlight that the floor was deeper than outside, and smoother, though there were a few small craters. Uncomfortable, he turned away.

The column was neatly camped, a cluster of toys to brightward. It was queer to see only their shadowed sides and a rim of corona light at the top of each. He looked, hesitantly, at the corona. From up here it seemed definitely bigger and brighter, especially at the base.

The chasm went straight brightward, swerving once to miss a smaller ringwall. Obviously, it was the bed of an old vine, chopped off by this ringwall—a comparatively recent meteor hit—and left to die from there up. He couldn't see the darkward of the ringwall, but he knew the stalk would have sealed itself, sent out feelers, found its way around the new obstacle, and gone on, paralleling the old, shriveling stalk. He could see that

it had drawn close so it could consume the old vine via small local roots. It *had* consumed it, leaving the ditch, something like two hundred strides across and nearly as deep.

The new vine was only half-grown (not inhabited, surely) but it was his first good view of a vine. Along the length, the thin layer of gravel was clearly distinguishable from solid rock. The leafages were great bursts of spear-like growth, fanning out in semicircles above each section-joint. Some, he knew, were fifteen times the height of a man. They were said to shade the path of the vine and, by evaporating water, keep the vine's temperature down when the sun struck here. He'd seen a piece of one once, freshly brought in; eight inches in diameter, moist and woody inside, covered outside with hard, rough very white scales.

He moved on a little way to see farther ahead, and a spot of very bright light came into view on the horizon. It must be a high mountain peak, catching the sun. He considered. Theory said sunlight reflected from a mountain was safe, and wonderful for the fungus, and warm. This mountain might be a hundred kilostrides away; still, they had to go farther than that. It was a little to brightward, but by the

time they got there the sun would have retreated farther. It would be a good place to camp and freshen up everyone's air, and catch up on whatever else needed doing.

Besides, he wanted to see a mountain.

The land between, so far as he could see, had no serious barriers. There were ringwalls of various sizes, some simple hills, a few cracks. He fixed those in his mind so he could avoid them.

This present chasm was the thing to worry about now. It would take too long to build a ramp across it, and the alternative of going back around the ringwall—and passing in its cold shadow—wasn't attractive.

Could a way be cleared along the base of the ringwall itself? A thought struck him. There must have been other migrations by here, unless they'd all passed farther darkward. He went a little way down the slope, and grinned with delight. There was a path of a sort, where boulders had been moved and holes filled in. He was very lucky this time.

Before continuing down, he looked around for one more thing. It was earlier in the season than the Traders appeared at the vines, but no one knew where they came from, and legend said they sometimes attacked migra-

tions. However, there was no movement in sight, and nothing that looked like a camp, and that was the best he could do. He started toward camp.

Before he'd gone far he noticed that he was breathing hard, even though he was going downhill. He began to have trouble controlling his limbs. Once, when he jumped between boulders, he misjudged and fell hard.

He hauled himself up painfully. Nothing was broken, but he knew he'd overestimated his air, especially since his backpack was now turned away from the corona. He wasn't silly yet, but he might not be far from it. And—he realized with shock—he'd violated an elementary principle. He'd come alone.

He got down safely, but by now his mind was very muggy and his limbs alternated between aching and numbness. He concentrated on getting one leg ahead of the other, stopping now and then to stand with his back to the corona, head down, almost falling asleep.

He hardly knew he'd reached camp until he stumbled into it. He was vaguely aware of Buld confronting him with a scowl, but couldn't seem to keep his mind even on that.

The next thing he knew Bannow and some others had a full airbag attached to the suit's in-

take nipple, and an empty one on the exhaust, and were squeezing air through. His head cleared, though he was still very tired.

Bannow told him, "You made a bad mistake sneaking Neena into the migration. She raised a fuss about your being gone so long, and somebody recognized her."

## V

There was no way Tem could have blocked a Council even if he'd tried. He called it as soon as he'd refreshed himself. There were six of the maturest men, beside himself.

The cumbersome touching of helmets slowed things so he had a chance to think. He listened woodenly to Buld's argument that since he'd broken the Law, he was no longer fit to lead; and that they'd better depose him.

He let them wait for his answer while he thought it out. Buld's argument was hypocritical, but how to demonstrate? He said, "Why is Buld so anxious to get rid of me? Does he want to be Leader himself?"

Buld declared he was thinking of the migration. Tem said, "Buld must have gained respect for the Law quite suddenly. When my father was dying, Buld wanted him to avoid the Law by disowning me."

That produced nods and one or two grins. Buld said, scowling, "That was just a suggestion to the Elders. What I wanted was a grown-up Leader. Besides smuggling in a brat who doesn't belong, this stripling has brought us too close to Brightside, and now he's got us trapped so we have to go back around this ring-wall. He'll get us all killed before he's through."

Tem said, "You don't know anything about how far Brightside is, or how far we can go."

Buld glared at him. "My father was on the last migration too!"

"He wasn't Leader," Tem said, "and no one voted for him for Chief. I'm the only one who's really trained. As far as Neena's concerned; which is better—a girl who wanted to come, or one who was afraid to?"

Buld and a couple of the others spoke of the Law again. Tem said, "If Sunn wants to punish me, he can do it right now. I'm ready." He stood up and walked a few paces away.

One of the men presently came over to him, with a glance toward the corona, and said, "What about this chasm you've got us up against?"

Tem went back and sat down. He thought he might get Buld to stick his tongue out a little farther. "What *should* we have done?"

Buld said, "We should have camped farther back while someone scouted."

Tem said, "By the same reasoning, we'll have to scout the other side now. Do you want the job? You can take a partner and some bags of air."

Buld glared. "We've all heard how a big meteor kills a vine, and that's obviously what's happened here. Why do we have to scout the other side?"

"Well," Tem said, "I wonder how you know for sure that this meteor killed this vine. What if the vine was already dead? We'd go all the way around and find we couldn't pass on that side either. Is that your idea of leadership?"

He was glad Buld wasn't quick-witted. Buld flushed and said, "Well, I would have found out before."

Bannow looked at Tem keenly and said, "Can you get us across without going around?"

"Of course," Tem said casually.

The vote was four to two in his favor.

Afterward, he was astonished at how alert and shrewd he'd been. Eloquence had never been his strong point before. He decided that it was because Buld had been trying to take something away from him and he just didn't want to let go.

They took the path he'd seen, finding only a few boulders to move, then crossed over the young vine. By now, everyone understood that he'd outsmarted Buld, and he saw many grins. That was good for morale, he decided. So was the evidence that another migration had passed this way, sometime. Tem wondered how that one had made out.

He didn't dare speak often to Neena, and though the other women, misty-eyed, had adopted her, she was glum. As the march dragged on, so were others.

But glumness wasn't the worst. One woman, taking her turn in the rester, refused to put her suit back on and had to be forced into it, screaming. She quieted later, but her face worried Tem and he could feel the whole column reacting. He made camp sooner than he might have, close to a vine, hoping that would raise spirits a little.

It turned out to be a mistake. While he was climbing a nearby ringwall to scout, the woman broke from camp and ran toward the vine. Others pursued. He had to stand helpless and watch the whole thing from a distance. She threw herself down, clawing at the gravel. Then, before they could reach her, she must have deliberately undone the lacing of her suit.

The suit went limp, and that was all.

Sick, he started down without finishing his scouting. He knew now what he should have done. He should have given her something to carry, walked her until she was exhausted, and let her sleep.

Another thing he'd been neglecting was religion. He'd have to appoint a preacher to talk about Sunn. It looked as if a Leader had to know and understand almost everything.

On the way down, he thought, It might have been Neena. What if it had happened to Neena?

They crossed a number of vines before he saw a lock, and that was in the distance. He made sure the column didn't see it.

The dazzling mountain was getting nearer, and he made a point of how they'd rest up when they got there, but some of the migration seemed to find it frightening rather than reassuring.

The supplies, including the air, were holding up pretty well, but there was trouble in the menagerie. Some of the goats got sick, and one died, for no apparent reason. Finally Tem discovered that some of the air-freshening fungus was spreading into their compartment, and they were

nibbling it. It wasn't supposed to be poison.

Some of the birds, confined so long, were pecking others to death. They had to be separated.

He'd expected conflicts among the people, but there were surprisingly few. Presently, from his own behavior, he understood why. He found himself withdrawing into the world of his suit, paying less and less attention to other people. One thing particularly struck him. The right arm of each suit was deeply pleated under the armpit, with an external grip so the gloved left hand could pull down and outward. That enabled the wearer to get his right arm inside. He noticed many right sleeves hanging empty before he realized he was doing the same thing himself. Thereafter, he kept his arm in the sleeve, unless he had to bring it inside to eat, drink, or scratch himself. It was odd, but the sleeve somehow felt outside the suit.

## VI

After they'd crossed a few more vines, they found what was left of an old migration. Tem thought it was probably the one that had built the path back there.

There were no corpses in the sagging menagerie except those



of cats, small birds, and fish. The goats and larger fowl were gone. There were several empty suits lying around, and four that weren't empty. There were waterbags, airbags, two resters, some air-freshener carts and some empty carts, all falling apart, the wood shrunk and warped, the rubber brittle and cracked from Sunn knew how many season's exposure. Tools, rope, and personal belongings were scattered about. It looked as if the survivors had taken what they could carry, and just walked. There was a vine within ten kilostrides, but no lock in sight.

Maybe the Traders had gotten them, or maybe Sunn had swallowed them up.

The column wasn't visibly much moved by the relics, but during the next camp a couple—a man and wife who'd had to leave two young children with relatives—quietly killed themselves. They didn't take the simple way of just opening their suits. They got knives inside, lay down together, and stabbed themselves.

That shook Tem worse than anything so far. He made up his mind to reach the sunlit mountain in two marches if he possibly could, with one brief stop between.

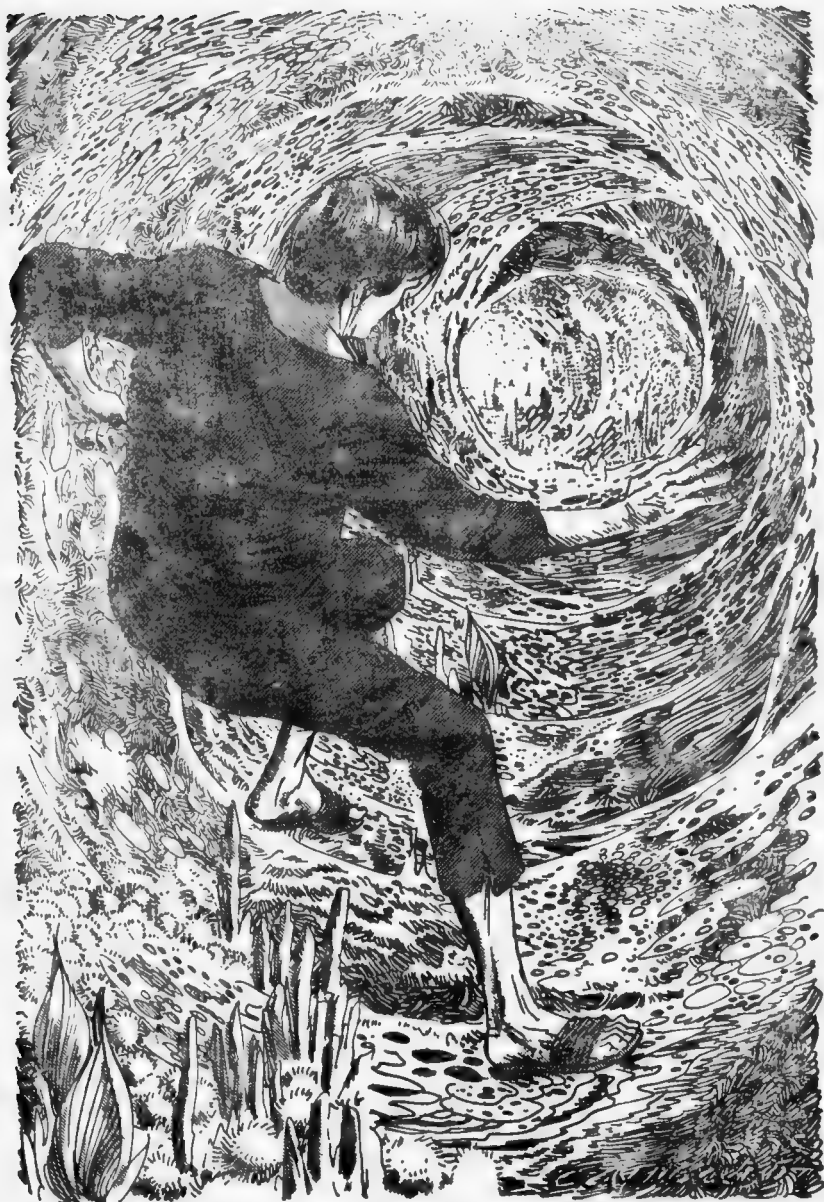
He pushed the column through

the first march, crossing two closely spaced vines without even slowing, camped briefly, and bulled them on. The mountain was awesome now; stretched diagonally ahead in one long blaze of light. He could feel the warmth of it already, and his eyes ached. Nevertheless, his vision was adjusting amazingly, so he could tolerate the light, though he couldn't look directly at it. The ground was mountain-lit by now. The corona was a faint ghost, and so were the stars, though space was black as ever.

He could see some of the people about to rebel at this light, and that Buld was getting ready for another try. Then he found the ideal spot.

There was a large ringwall some kilostrides from the mountain, itself aglow with mountain-light. Closer to the mountain, and near this end, was a much smaller one. He could go to brightward of the smaller one, for shade from the mountain, and enjoy the twice-reflected, tamer light from the big ringwall.

They dragged to the spot and made camp. The light was stronger than any in a vine, but comfortable. There was no more hunching of shoulders against the cold as one's warmth leaked away to the sky and to darkward. The fungus fairly puffed out fresh



air, and the animals grew frisky.

They had the cleaned and exposed carcass of the goat that had died, and now Tem decided they could build a small fire in the menagerie and have fresh meat for once. People revived visibly.

By his count of vines, they might be close to half way through their journey. Before they left here, he'd have scouted enough to make a closer guess.

The lower slope of the mountain, below where the sunlight hit, could be climbed, he thought, to an elevation higher than any ringwall he'd seen yet. So, as soon as people were fed and resting he took Bannow and started that way.

He got used to looking at the mountain through a murky part of his helmet, so the light was cut down.

The mountain was probably twenty kilostrides long, and half that high at the peak. It was really a long ridge, set at an angle to the sun, and he had a feeling it was not very thick through. It curved down at each end, tapering into darkness.

The upper part of it was sheer cliff, lit part way down now. Below the cliff, and barely visible with one's eyes dazzled so, was a steep but even slope, apparently of rock crumbled from the cliff by the sun's timeless hammer-

ing. Already Tem was perspiring. He touched helmets with Bannow to say, "We'd better turn from side to side so we won't melt our suits."

Actually, it didn't turn out to be that bad. They had shade from huge boulders, and could hurry across open stretches; and one could always turn his back-pack to the cliff and let the fungus soak up some of the light.

They kept on until they were more than halfway up the rubble slope, then the heat was finally too great. They sat down in a shadow.

Gradually Tem's eyes adjusted, but it was still disappointing how little he could see of the country. Things close by were brightly lit from the mountain, and tended to dazzle his sight. Things farther away weren't lit much. He could see the two close-spaced vines they'd crossed (both squeezing around the obstacle of the mountain) and some ringwalls he remembered. In the other direction, beyond the far end of the mountain, he thought he could make out the leafages of another vine, but he wasn't sure.

He said to Bannow, "I guess that ringwall would be a better vantage point after all. Maybe we can walk part way around it and climb.

Bannow didn't answer. Tem

drew aside and looked at him. Bannow's eyes were fixed down the slope, and when Tem followed the look he saw four suited figures, tiny in the distance moving toward the slope. They were spread out widely, each carrying something in one hand. A moment later he saw a fifth. He decided the things they were carrying were some of the sharpened stakes intended for fastening the lock onto the new vine. In addition, the fifth one dragged two airbags.

Bannow started to rise, and Tem pulled him back. Bannow touched helmets. "It's Buld and his bunch! They intend to kill us!"

"I know," Tem said, trying to keep the trembling anger out of his voice, "but let's stay here for a while and think. They can't see us. Remember how it was looking up?"

Bannow sat down. "But we've got to get around them and get back to camp!"

"How? If we climb down they'll see us, and move to intercept. We'll run out of air before they do. They've probably told the camp they were just climbing that small ringwall or something. We can't expect any help in time."

"Well," Bannow demanded, "what are we going to do?"

"First of all, let's act as if we

didn't see them. We can go along this slope to the end of the mountain and get into shadow. They may not see us at all; and even if they do, we'll be out of their reach, so probably they'll just wait."

"Then what?"

"Well . . . at the worst, we might go clear around the mountain and get back to camp from the other end. I figure it wouldn't be more than sixty kilostrides. If we're very careful with our air, we might make it."

Bannow looked very doubtful. "It'll be cold on the other side."

"Maybe not. The heat may go clear through. Anyway, it's better than just sitting here, isn't it?"

Bannow hesitated, but finally nodded.

They went carefully, seeking shadows, but presently it became clear that Buld had spotted them. They kept on, rounded a bulge, and were in darkness.

## VII

Now even the corona-light was hidden. Gradually the stars grew into brilliance, as if the distant gods were drawing closer to watch.

To Tem's surprise, this side of the mountain was a gentle slope, with a surface much like level ground. Below them was a small

ringwall, ghostly in the Starlight. He could feel his warmth leaking away, so he turned a little uphill. If there were warmth coming through the mountain, it would be nearer the top.

They moved on slowly. Tem was paying close attention to the footing so he wouldn't trip, when a vaguely seen motion ahead brought him to a startled halt.

Bannow had seen it too. Tem bent his head to touch helmets, but said nothing. The movement was not toward them, but up the slope from below, crossing their path. It was not a man, nor any single creature, but a vast moving pack. As well as he could make out in the dim light, the individuals stood half as high as a man and moved on many legs, though they didn't seem to have horizontal bodies like cats or goats. Finally he said, in a cautious whisper, "Do you suppose these are the things the Book speaks of? The metal things that crawl?"

Bannow's voice was awed. "I don't know. Shall we turn back?"

"Let's stand still for a while."

The vanguard of the pack was nearing the top. Suddenly a line of light grew along the peak, toward them, so bright and so startling that Tem threw an arm before his eyes. He felt Bannow whirl away from him. He him-

self took a step backward and stumbled over Bannow, who'd evidently tripped with the first step. He jerked his head around to look back. The line of light was still advancing, and he pushed himself erect to run, but before he did he realized the line was not aimed at him, but was just growing along the peak. It was not a solid line, he saw as it came closer, but consisted of thin upright sticks, like a row of very bright, perfectly matched firebrands. It was not straight, but irregular, with dips and rises and gaps.

Something brushed by him. He flinched, but didn't panic. Now he was surrounded by the things, which felt solid and heavy when they bumped against him, but paid him no attention. They scuttled to the peak and aligned themselves along it, thrusting up fingers or feelers into the sunlight, jostling for places in line, crowding each other where there were too many. Then there were no more around him, but farther along they still swept up.

Bannow got to his feet, pawing at his suit. Tem moved close and touched helmets. The man started, then said, "Sunn! They walked right over me! I thought . . . is my suit punctured? I can't—I don't hear any hiss . . ."

"You're all right," Tem told him. The suit felt rigid as ever,

but there was a little roughness. "I guess they have very small claws, if any." He looked toward the peak. "They seem to eat the sunlight, or drink it."

A few stragglers were arriving, to push their way into line. Tem moved after one, trying to see it.

There was a central body, the size of a man's head. A number of legs, each as long as Tem's arm but no thicker than a finger, grew from the body on all sides. These were flexible, and while about half of them clung to the rocks, the rest were held up so that two inches of the tips were in sunlight.

Now the things were motionless except for an occasional shifting of stance or a wave of an upthrust leg. They stretched along the mountain as far as Tem could see in either direction.

A very strong urge gripped him to climb and get one quick glimpse of the sun. He took a few steps before he caught himself. He looked at Bannow, then reluctantly turned to go on. There was no time to investigate this wonder now.

Bannow drew alongside, wanting to talk, but Tem put off touching helmets. These creatures were apparently a form of life that didn't need air; could

wander at will. Could things be learned from them that would free men from dependence on the vines? Could a man, or a small group, find an empty vine nearby and make trips to study them?

He turned to Bannow, and as he did he saw a line of luminous blobs moving up the slope toward them.

He crouched, suppressing his impulse to run, but Bannow's nerve finally broke. The man whirled and ran back the way they'd come. Tem shouted uselessly, then started after him. The blobs of light suddenly reacted, moving to cut Bannow off.

Bannow might have outrun them, but instead he turned and ran up the slope. Tem, suddenly realizing the danger, ran as fast as he could toward him.

He was too late. He saw Bannow's helmet suddenly turn blinding bright as it popped into sunlight. Bannow's eyes stared for just an instant, then snapped shut. The man clapped both hands to his face, whirled, and plunged down the slope. Tem saw him go headlong and slide. Then the suit suddenly went limp.

He stopped, fighting nausea, forgetting the blobs until a knot of them gathered around Bannow's corpse. By then he could see they were men in suits, with



very large backpacks that gave off the glow. Shortly, several surrounded Tem. He thought of looking for a rock to defend himself, but they didn't act threatening, though two of them held tapered, sharp-tipped swords.

One of them made incomprehensible hand-signals, then, as Tem shook his head, pointed at Tem's helmet and his own, and pantomimed bringing them together. Tem nodded and they touched helmets.

## VIII

The man's speech was only slightly odd. "You from a vine near here, son? What are the two of you doing up here, anyway?"

Tem tried to get his voice working. "We—I guess my friend isn't doing anything, any more."

The man shrugged. "Too bad. But it would have been best if he didn't panic. Why were the two of you up here?"

Tem hesitated. Maybe he oughtn't to tell them about the migration. "Some men were trying to kill us. We came to this side of the mountain to get away."

The man looked thoughtful. "Your vine very far?"

"Well . . . quite a ways."

The man studied his face and

finally said, "You're from a migration. Got yourselves in some kind of trouble, and ran. Besten you not be so close-mouthed about it. We won't take you back."

Tem said indignantly, "It isn't that at all!"

The man scowled. "Well, we can't stand here jabbering. You can come with us, or die here." He glanced at the two with swords, then turned and went down the slope. The two armed men waited motionless.

Others had taken Bannow's suit off his body, and were carrying the suit away. Tem started toward the corpse, changed his mind, and walked after the spokesman.

The line spread out again, so it was hard to see anything but the glowing backpacks. There were about thirty, all told. A little way down one of them bent to pick up a thing and carried it in one arm. Tem saw legs dangling, and realized it was one of the metal things, dead. Another man found one, and so it went all the way down the slope, until each man was carrying two or three. Finally the spokesman turned back and handed Tem a pair to carry. They were fairly heavy.

Beyond the end of the slope, other figures moved about, apparently also gathering the dead

things. Soon Tem saw that there were carts heaped with them. Imitating others, he went to the nearest cart and deposited the two he had. No one gave him any instructions, so he just stood.

Presently they stopped looking for the things and threw over each cartload a rope net, tying it securely. Someone looked at Tem and pointed to a tow-rope. He picked it up and pulled with the others, wondering if they just wanted to get some work out of him before killing him.

It seemed a very long time that he trudged, his hands on the rope first cramping painfully, then going numb. His feet grew clumsy. He stumbled along, knowing his air was bad. Finally he must have fallen, for the next thing he knew he was draped face-down across a cart-load, and tied on so he wouldn't slide off. The jolting ride went on for a long time.

He realized that they were clear into Darkside now.

Then they halted, and he managed to raise his head and saw another cliff, this one lit only by starlight, and with no rubble at its foot.

There were four tunnels in the cliff, each with a clear-rubber airlock. One of the locks was open, and the carts were being rolled in.

Dull as he was, the lock fascinated him. It was made more intricately than the ones he knew, with hoops along its length and pleats between. The three not in use were folded against the tunnel-mouths. His mind worked at that. Why, they must squeeze the air back into the tunnels, instead of losing it!

He got a chance to observe that, as his cart was in the next batch that went in. The tunnel itself seemed to be a second lock, as it had a plug in its middle, and another at its inward end. When that was opened, light as strong as a vine's spilled in.

Inside, they unloaded him and laid him on the floor, face up. Someone began unlacing his suit. A little pressure seeped out, then his helmet was pulled off and he was breathing pure, rich air.

As soon as he could, he sat up and stared around at things he only gradually understood.

This was evidently a great natural fissure, twisting back into a mountain, but it had been much reworked. Rock was hewed away in places. At others, walls of squared stones, cemented with latex, sealed openings or supported ceilings.

A series of shelves hacked from the walls were planted with some kind of shrubs Tem didn't know. There was a stepped wall down the middle of the fissure,

similarly planted. Luminous moss grew on vertical surfaces and on the ceiling.

The artificial wall where the tunnels came in drew his awed attention. There were great abutments supporting massive machinery — more metal than he'd supposed existed. Some men were turning a giant's windlass, slowly raising high a huge boulder that dangled on a rope as thick as Tem's thigh. At the other end of the wall, a similar boulder descended slowly, turning a heavy shaft to which were geared a dozen strange devices. Rods moved in and out of smooth round holes, with a hissing that could only be the intermittent escape of air under pressure. Great pulleys creaked as the monstrous ropes snaked around them.

Eventually he understood that all this machinery operated the locks, squeezing air in and out.

The tunnel he'd come through opened again, and the last of the expedition came in. The man who'd talked to Tem unfastened his helmet and removed it, looked around checking men and carts, and finally glanced toward Tem. He came over and said, "I'm Hannult. I'll want to talk to you later, but meanwhile I'll take you to the Young Bachelors' chamber and leave you with Oskir. He's boss there."

Oskir was older than Tem, blond, and large. He looked Tem in the eye without expression, then walked around him studying his suit. Finally he said, "No marvel your air got bad. Is this the besten you Vinies can do?"

Tem flushed. "I've trekked two hundred kilostrides in it!"

Oskir's eyes showed a trace of amusement. "With airbags and big carts of freshener, and such. What's your name, and how old are you?"

Tem started to blurt out angrily that he was a Chief's first son, but saw the futility of that. He'd have a better chance of escaping if they didn't know he wanted to get back to his migration. He said sullenly, "My name's Tem. I'm seventy orbits. And a half."

The amusement flickered in Oskir's eyes again. "Tell you, then. There's roast goat over there, and some milk. This ditch is for bathing, and the way you smell, besten you do that first. Hang your suit here." He indicated a peg, then waved a hand toward a low dark tunnel. "We sleep in there. You'll take the pad nearest the inlet." He turned and walked away.

Tem glared at him, then hung his suit on the peg, removed his underthings and stepped into the water. It was tepid, and smelled

of some pungent herb. He scrubbed himself with a wad of coarse vegetable fibre, got out, rubbed himself dry, started to dress, then decided he'd better not. He dumped the clothes in the water to soak, and went over to eat. When he'd done that, he rinsed the clothes, wrung them and spread them on the floor under his suit.

Oskir and some others, deliberately ignoring him now, were squatted in a circle, gambling with odd-shaped stones. Five or six more worked on their suits or tinkered with various things. There were about twenty in the group.

Tem ducked through the tunnel and found there was a spacious chamber beyond. There was no luminous moss, but enough light came in so he could see that the walls were cut into shelves and planted. The pads were spaced far apart, probably for ventilation. He lay down on the first, wincing with lameness, and tried to relax.

Evidently these people didn't intend to kill him, but would he ever get a chance to escape? And if he did, what then?

He wondered what Buld had told the column. Possibly that Tem and Bannow had deserted and surrendered to a vine. He wondered what would happen to Neena.

For all he knew, these people might hunt down the column and plunder it. He listened to the low hum of talk in the outer chamber. These were the Traders, of course. At least they were human, though they had odd ways of living.

Eventually, from exhaustion, he slept.

Oskir woke him by toeing him in the ribs. He rolled aside and got to his feet. He felt rested, so some time must have passed. Oskir nodded toward the tunnel.

In the outer chamber were all the young men he'd seen before, plus two or three others. They stood along the walls, with an air of waiting.

Oskir said, "Turn around." When Tem did so, Oskir hit him on the chin hard enough to knock him down.

Tem came up like a cat, and didn't forget to poke out his left fist before swinging his right, but somehow both punches bounced off Oskir's thick forearms. Oskir hit him again. He staggered, caught his balance and tried to dodge in close. He got his left to Oskir's cheek, but not solidly, and took a hard punch he didn't even see coming.

After that it was one long series of stunning blows. He fought back as well as he could, but he

was groggy and Oskir was too strong, and too clever with his fists. Tem went down repeatedly. Each time, he hauled himself up, until finally, after a punch that didn't feel any harder than the rest, he found his legs wouldn't work. He had the will to get up, and his mind was fairly clear, but his limbs would only make uncoordinated pawing motions.

They picked him up, dowsed him in the bath water, and swabbed off his face. He was still too weak to stand alone, but his thoughts were remarkably clear, if inclined to wander. He was bleeding a little from the nose and from a small cut in his upper lip, but he knew he wasn't badly marred.

Most of the punches had been clean ones to the chin. He realized Oskir had deliberately avoided messing him up.

He was almost strong enough now to start swinging again, but something in their attitude stopped him. They were looking at him with casual approval. Finally Oskir said, "I'm going to parley besten I can Hannult let you join."

Tem glared at him. "Oh? And suppose I don't want to?"

Oskir looked mildly surprised. "What else can you do? You spect we'd let you go back to a vine, now that you've seen this much?"

## IX

As the newest member of Oskir's dormitory, Tem drew the menial tasks. Every three sleep-cycles (as marked by the growth of moss along a measured path) he had to bail the bath water into bags and carry it around to prescribed places to be used for irrigation, then refill the ditch from the nearest reservoir. He had to sweep the floor, air the pads, ventilate the dormitory by using fans, fetch food, bring in fertilizer for the plants and take garbage to the fertilizer factory. He smouldered, but held his temper. Aside from his occupations, he was treated as an equal.

Oskir, who seemed to know everything, personally took charge of his training. One big job was to build a new suit for himself, and he had to perform every bit of the work to Oskir's satisfaction, even if it had to be done over ten times. The backpack was complicated. Instead of a simple honeycomb of fungus, as in his old suit, this one alternated layers of fungus with layers of luminous moss, which gave enough light to keep the fungus working. There was also a better way of feeding in nutrients, and a better method of circulating the air. It was twice as heavy as the old pack.

Equally fascinating was the jettison lock in the front of the suit, at waist level. It had ingenious valves so it could be worked from either outside or inside. Using little bags for body wastes, this made it possible to live in the suit for a long time.

There were also improvements at the ankles and in the soles, which made for better climbing and less danger from sharp rocks. All in all, he was delighted, and he nearly blurted out that such suits would make travel between vines easy. He caught himself in time.

The cycles flowed past. His despair about the migration dulled a little, so he could live with it. He was able to pretend he was content here. He wasn't quite accepted into the clique, but aside from a certain amount of joking about his Vinie origin, there was no hazing. He was willing to let things rest there.

He supposed the migration would be close to finding its vine now, if it hadn't run into bad trouble. He worried about Neena. They might put her in Bottom Caste, since she didn't belong, which would make her a virtual servant to the whole vine. He supposed Buld would get himself elected Chief. That thought brought up shaking hot anger; and that was one feeling that didn't grow dull.

He thought, now, that he should have killed Buld right at the start. It wouldn't have occurred to him then, of course, but that seemed to be the logic of the thing. He could have found some way to make it look like an accident.

He shuddered and put that thought from his mind.

Some younger men were elevated to Oskir's group, and took over the menial chores. Tem was put to work in the shops where the metal creatures were cut apart and things made from the metal.

He was a flunkey, but not the only one, and the place was so fascinating he didn't mind. Sometimes he worked a hand bellows that forced air into big rubber bags, for the smiths to use with their fires.

In the vines, small open fires had been used for cooking, or to cure rubber, but that was all. These fires were even smaller, and confined within stone boxes through which thin jets of air were blown. The flame came out pointed and incredibly hot, and would even melt iron.

The metal creature's legs were partly iron, but their body-cases were of some other metal. They were cut open, the insides were taken out and sorted for various metals, and the cases were ham-



mered flat, then trimmed six-sided. The edges were heated soft and joined together. Finally, when a sheet of them was big enough, it was hammered on great anvils until it was very flat and smooth and the joints could hardly be seen.

Also, using the fires and anvils, with some special tools, the smiths made all sorts of tools and weapons. There were the straight tapered swords he'd seen, and a variety of knives that made his own look crude. There were scissors; dainty ones for tailoring, large, long-handled ones for cutting tough vegetation or even metal.

One tool in particular took his eye—a saw for cutting the hard hulls of vines.

Once he helped carry some new gardening tools to a branch of the cave where grains were planted. For the first time, he saw women of the cave close up. They wore ordinary clothes and looked no different from vine women. When he heard one speak, he was sure she *had* come from a vine. He wanted to talk to her, ask her how she'd come here, but he didn't get a chance.

He worked in the smithies and at other jobs until he knew most parts of the cave, and most of their equipment. Then a time came when Oskir told him, "You'll be getting a chance to

try out your suit. Hannult says besten we take you on a foray and see how you act."

There were about forty men on the expedition, including Oskir, Tem, and half a dozen others of the dormitory. They took eight medium-sized carts, a few tools, some empty bags, and some extra air and water. They headed deeper into Darkside, and now there was something different about the ground. It was darker and harder to see in the starlight, and slick at times. He had to walk carefully.

This suit held the warmth better; and, after a good twenty kilostrides, he couldn't feel any deterioration of the air.

They kept going almost in a straight line until a ringway lay ahead. He studied it curiously. Not only was it low in relation to its width, but it lacked the rugged outlines he was used to. They reached the skirt and he found he was walking on gravel, among half-buried boulders. He saw signs that people had been here before, shoveling away the gravel, and that was apparently what they were going to do now.

They laid out small-meshed nets of strong cord, and he was given a shovel and told to heap gravel on one of them. When it was fairly covered, four men took hold of one side and four of the

other, and rolled the load back and forth so that the fine stuff sifted through. They discarded the coarse stuff and started over. As the fine material piled up, they shoveled it into the box-like carts.

Tem's curiosity overcame his pride. During a rest period, he touched helmets with Oskir. "What is this for?"

"Dirt."

Tem flushed. "I mean, why are we getting it here?"

Oskir grinned. "Cause we don't want to take it away from Vinies." In a moment he went on, "If you just take rock that's been burnt in the sun and crush it, there ain't much good in it. This is the best for growing stuff, sept you can get goat manure or rotted rice or such. You got to find a ringwall like this one, in Darkside."

"Oh," Tem said. "What makes this one different?"

Oskir shrugged. "My father told me it was because a meteor was ice, not rock like most. It went in a ways and exploded, and threw out this fine stuff. Times, you'll dig down a ways and it feels wet, a little. This is the only one I been to. I can parley it makes stuff grow, all right."

Tem digested that. Then, as Oskir seemed in a talkative mood, he brought up something he'd been wondering about. "You peo-

ple never talk about Sunn. The god Sunn, I mean. You always try to explain how things happen by themselves. Don't you believe in Sunn?"

Oskir pulled his helmet away and chewed on some dried meat for a while. Then he joined helmets again. "There's those talk about Sunn. I spect it's how you feel inside. I never could see much proof one way or the other. Looks to me, if there's a Sunn, he put things so they run mostly by themselves. Looks to me, people are supposed to make their own, not sit down and wait for some god to give it to them. He put plenty, sept a man, don't try."

Tem drew back, uncomfortable. This might be blasphemy, but it made more sense here Outside than in a vine. It would explain how a man like Buld could just take what he wanted, Law or no Law, if no one stopped him. And keep it, if no one took it back.

They filled seven of the carts, packed the tools and other things in the eighth cart or on top of the dirt, and started Brightward. Judging from Han-nult's caution now—sending scouts, camping in cover—there must be some danger. Also, they seemed to be mapping, as Han-nult kept making notes and sketches.

Finally, when the gossip was that they were nearly out of Darkside, they made camp on a moist gravel patch that Oskir said lay over the base of a vine. They were going to get water here. While a pit was being dug, Oskir took Tem to the nearest ringwall on sentry duty.

They left relays of men for contact with camp, and moved around to brightward of the ringwall before climbing. From the top, the corona was faintly visible, and Tem could see the dark line of gravel where the vine ran up-country, though there were no leafages here. He wondered if a vine seeped water all along its length. He turned to ask Oskir, and found Oskir's back to him.

It occurred to him it would be very easy to pick up a rock and hit Oskir on the head. The inflated helmet was rigid, but would move easily, and (as Tem knew from more than one tumble) wouldn't protect the skull. He could roll the corpse down inside the ringwall, where they'd be a long time finding it. He owed Oskir some lumps.

However, he found he didn't want to kill Oskir. He'd repay the beating sometime, as a matter of principle, but he didn't really resent it. After all, that had been a matter of principle too; a duty with Oskir. Anyway, he'd better

stay with the Traders until he learned more, and at least knew where he was.

Oskir turned. Tem touched helmets and asked, "That dark streak. Is that because it's moist?"

"A little. Those are reservoir sections of the vine."

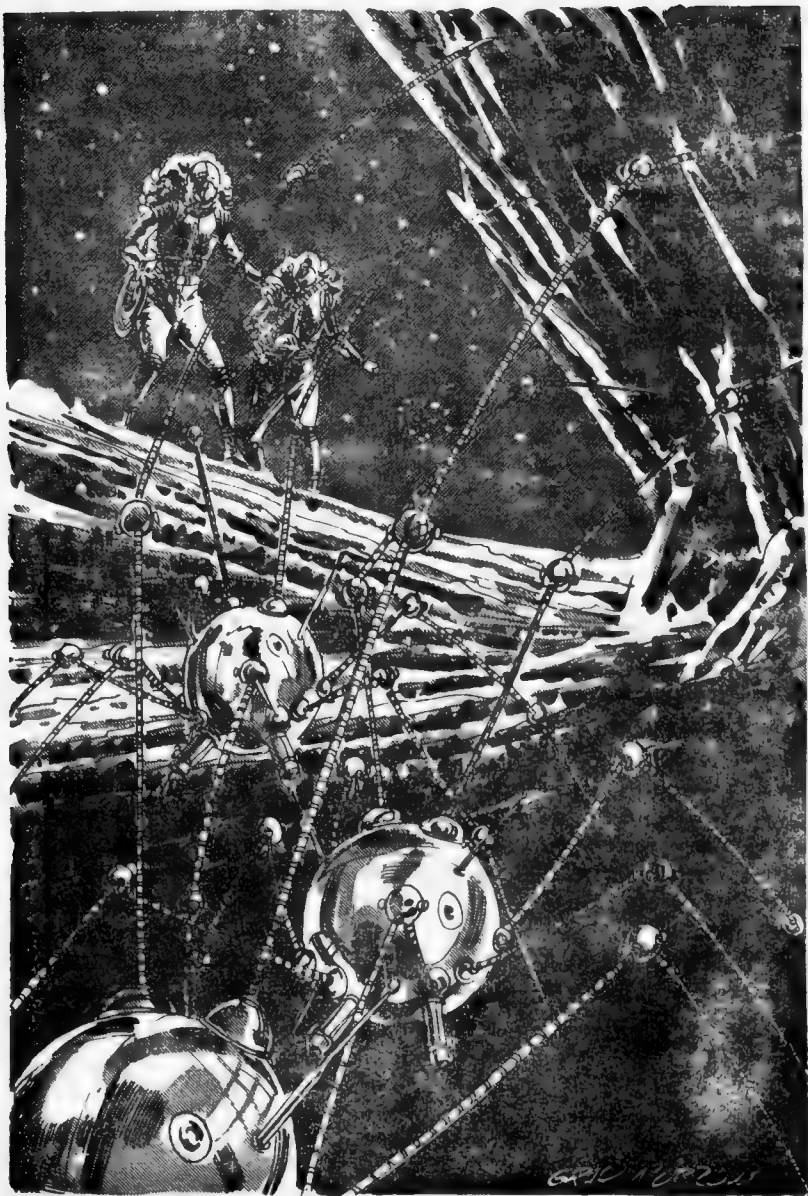
Tem said, "What do you mean, reservoir sections? There's water in every section, even up near Brightside."

"Sure," Oskir said, "but these here are full; no air space at all. They're deeper under, too, so they're safer from meteors. If a vine gets hit farther up, this water'll stay here until a new vine grows."

"Oh."

Oskir nodded up-country. "You can't see the first leafages from here. I spect it'd be about eighty kilostrides. That's where the vines start to have air in them, and come up near the surface. Hey. You tell me how the Vinies decide where to put their locks."

Tem said, "The Law sets it. You're supposed to have at least forty leafages below the lock, but not more than eighty. That puts it in a comfortable part of the vine." He looked at Oskir, then touched helmets again. "You ever been as far up as the locks?"



Oskir grinned. "I been on trading trips for the last nine orbits. Last orbit I was clear to the leaves."

"What?"

"Sure. Hannult took me along. Ten of us went."

Tem said, "How did you stay alive?"

"We didn't walk out in the sun, stupid. There's ringwalls and mountains, like here, for shade. Besides, the leaves grow three times as high as here, and thick, and make a shade. Only thing is, the ground's hot in places. We found one place you could stand on a mountain and look at the sun through a thick piece of rubber."

Tem snorted.

Oskir said, "Your friend did, didn't he? Only thing, he didn't have enough rubber in front of him. Course, you can only look for a couple of pulses, or the rubber melts."

Tem, the notion spinning in his head, began to believe. "To go all the way to Brightside!" he muttered. "And look at the sun!"

Oskir chuckled. "You spect that's something? Look here." He turned and pointed the way he'd been looking before. "See that bright star, right above the horizon?"

"Yes. That's really bright."

"You should see Venus when it's in the sky. This one's Earth.

See the real faint one, kind of yellow, right beside it? That's the moon. It goes around Earth. You know about Earth?"

"Well . . ." Tem said.

Oskir's voice was soft. "That's where people come from in the first place. Some day, we'll find out how; then we'll go see what happened to them. Maybe they're still there, but just need a little help of some kind." He stood looking for a while. "I spect it won't be in my lifetime. No more of this parley, now. We're supposed to be up here on watch."

## X

When they got back to camp, the pit was thirty feet deep. They ate, rested briefly, and joined the digging.

Before long the hull of a vine showed. Now men brought a pipe, ten feet long, made of wooden strips glued together, with an iron tip honed to a slanted cutting edge. Hannult jabbed at the vine, twisted and pulled the pipe free. An iron rod was thrust in from the other end, to punch out the chunk of vine that had stuck in it. Hannult kept deepening the hole until some water, bearing chips and strings of latex, gushed out. Now the pipe was thrust clear in, and water swelled from the tip.

They collected the water in

bags, but to Tem's surprise they didn't seal them at first. They dumped the water into the dirt-laden carts. The water soaked into the dirt, and the carts still weren't any fuller!

When all the dirt was mud, they did fill the bags and seal them. Iron bars went over the mud, and the bags were tied on top.

The hole in the vine plugged quickly when the pipe was removed, and they filled in the pit before leaving. There were traces of mist here and there, just above ground, and puddles that evaporated quickly.

Now they turned darkward again, but angled away from the vine, to the right. If Tem had his directions correct, they were headed home.

When they'd traveled about sixty kilostrides they met the trouble Hannult had been expecting.

They were nearing a large ringwall when a scout who'd climbed it began signalling; turning his backpack toward them, then away, in a complex sequence. He was relaying something from scouts farther around the crater.

Hannult sent two men running ahead to find a hiding place, and took the column straight to the ringwall. Two other men back-

tracked to make sure no telltale debris had been dropped along their path. Then Hannult talked briefly with Oskir, who gathered Tem and his other young men.

The column found its hidden cove, and there was a hasty transfer of good on the carts. The cart with no mud in it was fitted out with a few tools, one of the tapping-pipes, a bag of air, and two bags of water; along with some food. Oskir's bunch seized the towropes and ran around toward the dark side of the crater. They were going all out, and Tem's lungs soon burned like fire. Even this suit would never keep up, at this rate.

Before long, though, they slowed to a leisure pace. The main column was getting ready to go around the bright side if that were clear, or hide if it weren't. Obviously, this single cart was a decoy.

When they'd gone a little farther, Tem saw in the distance a whole army of backpack glows. There must be over a hundred. Oskir held the casual pace, moving darkward from the ringwall. Presently it was clear they'd been sighted, for a dozen men broke away from the army and ran to intercept them. Oskir went on a little way, then stopped so suddenly the cart almost overran Tem. Then Oskir threw his weight forward again, and so did



the others. The cart began to bounce over the rock, headed away from the strangers now.

Of course they couldn't escape with the cart, but Tem supposed any time gained would be vital to Hannult. Scouts climbing the crater might pause to watch the chase.

The pursuers were getting close now. Oskir dropped the rope and ran. The others went with him, but Tem had no warning. He stumbled and fell. By the time he got to his feet the raiders were nearly upon the cart. They were making derisive gestures, apparently with no intention of chasing anyone so long as they got the cart and supplies.

**T**em could still have fled, or he might just have stood there meekly, but something in the face of the nearest stranger reminded him of Buld. Shocking, unexpected fury exploded within him. He leaped to the cart and grabbed the tapping pipe; spun it so the point was toward the stranger, and lunged. The man stared for an instant, then twisted frantically. The point raked along his side, and for a split instant Tem thought he'd punctured the suit, but it only snagged and pulled free, intact. He took a step back, ready for another thrust, but all the strangers had leaped out of reach. Now each put an

arm behind him and pulled, from somewhere, a sword. They spread out to surround him. He gave ground, darted to one side and menaced a man, who drew back. Beyond them he saw more men leave the army, carrying long spears that would out-reach him. The local group pressed him back slowly, gaining time. He felt very foolish now. What had he accomplished? Well, at least, he was being a good decoy, and that was the intent. But he'd soon be a dead one. His stomach felt as if it were full of gravel.

Then a rock sailed past him and made one of the strangers duck. More came; obviously Oskir hadn't run far. But throwing-size rocks weren't plentiful. Tem hesitated. Shouldn't he take this second chance to run? After making such a fool of himself, he was ashamed of himself, he was ashamed to have Oskir and the others put themselves in danger.

But before he could make up his mind, the strangers were suddenly retreating toward their own army. Only one of them—the one Tem had attacked—stayed for a moment. That one, keeping the cart between himself and Tem, ran forward and jabbed his sword into first one, then the other, bag of water. Then he grinned at Tem, made an obscene gesture, and ran after the others.

Bewildered as he was, Tem had wits enough to go to the cart and press a hand over the cuts in the bags. Oskir arrived, furious, and bumped helmets! "Fool! You might have gotten us all killed! Why didn't you follow the plan?"

Tem thought about it. He could hardly explain. He said meekly, "Nobody told me any plan."

Oskir glared, speechless. Then the glare began to fade and finally he was grinning. "Well, besten we not stand here. Another army's coming, or they wouldn't have run like that. Likely they're loaded with plunder and the owners are chasing them. I spect you'd want to fight them, too."

## XI

They found Hannult before he reached the cave. He was delighted that they'd saved the cart and supplies, and if he didn't think well of the way it had happened, he didn't say so directly to Tem. However, as soon as they were home Tem was put on a crash program of learning the hand signals, also the backpack-signaling. He was told in blunt language that, while feuds of varying deadliness existed between tribes of Traders, this cave wanted none. Evidently it was

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considered a sport, not a hostile act, to capture carts out in the open.

Sport or not, when the cave sent out the first trading expedition of the season, a few hundred kilopulses later, it was large and well-armed. Even some of the women went along to handle chores.

This was more like a migration than a foray. There were carts with air-fresheners, resters, extra air, extra water, and many empty bags. There were tools and metal in sheets, rods, and bars, for trade; and bags of rock salt mined in the cave. They also had a few woven fabrics to offer, and some articles of wood, but these were just camouflage, to mask their dependence on the vines.

Their own more sophisticated tools, including the vine-tapping pipes and the saws, were kept out of sight, with the weapons.

To Tem's disappointment, they headed the opposite way from the migrations, slanting brightward. When they'd gone a ways he found a chance to talk to Oskir. "That mountain where I was picked up must be near here."

Oskir shook his head. "We aren't that far yet. That's just about the end of our territory."

So they wouldn't get to Tem's old vine. He asked, "Do we trade

all the way out to the newest vines?"

"No. The last eight or ten belong to that bunch you tangled with. The newest are too poor to trade much, anyway. That's why we never bother with migrations, either. Sept sometimes we steal a girl or two."

They passed the mountain eventually, but now only the very peak was lit, giving little warmth or light. They turned brightward to a large ringwall and made camp in a hidden niche. Oskir took Tem to one of the resters, handed him another suit, and said, "You're picked for the trading party. Go inside and they'll fix you up."

There were two men inside who helped him out of his suit, then proceeded to smear his face with greasy stuff that stained it red. A pair of goggles hid his eyes. Finally they helped him into the second suit, and he was disgusted to find that it was his old one. Later he saw that the whole trading party—twenty men—were similarly made up and were wearing Vinie suits. Then he understood. They didn't want the good suits seen.

With two cartloads of goods, they approached the first vine. Two Elders were in the lock, pretending to be making repairs. Tem grinned. He knew the eager-

ness and unease they were hiding.

Hannult did the bargaining, standing outside the clearest spot and gesticulating, as items were brought up singly for display. He put on a show of fierceness and weirdness. Tem, carrying an axe-head to be shown, grimaced and made hostile gestures, and enjoyed the Elders' expressions. That earned him a scowl from Oskir that was half grin.

When the Elders were convinced there'd be legitimate trading, the inner plug opened. Moss-light spilled out. A procession came out, bearing bags of fruit and grain, cooked fish, cooked fowl, and raw carcasses of goats. There were a few small bags of water, handled as if they were very precious. Larger bags contained liquid vine latex, which could be used as glue or for making rubber.

Hannult accepted the edibles and the latex, and solemnly purchased a small bag of water, as if it were a great luxury. He concluded the trading with mysterious genuflections, and led the party away by a roundabout path.

As soon as they reached camp, the women went to work on the goat carcasses. The meat was cut in strips and mauled with spike-headed hammers, then laid out on the surface rock so the warmth would speed drying. When it was

dry, it was powdered with a little salt and sealed into small bags. Oskir said it would keep a long time.

**T**hey worked back across the vines, re-passing the high mountain, gradually exchanging the metalware for edibles and latex, and some articles of wood. It became obvious to Tem that they wouldn't get within two hundred kilostrides of the newest vine.

Nevertheless, he made preparations. He found a chance to steal a saw and hide it. He got several bags of the powdered meat, too, and some grain. Water would be a problem. If he couldn't steal a bag of the right size, he might have to get it from vines, which would take him farther to darkward than he wanted to go. Tentatively, he took a small bag.

Toward the end of the trading, there was much sentry duty. When sentries were being changed, he slipped away, got the stuff he'd hidden and kept on going.

## XII

**A**fter crossing several vines, he nearly blundered into the foreign trading expedition, but they didn't see him. He detoured around them, then moved dark-

ward and turned across country, crossing below the lock of each vine.

He walked, rested, and walked, until he lost all count of the stops. He ate enough to keep up his strength, but drank sparingly. Gradually he slid into the familiar half-daze, and had to make an effort to think at all. After a while he realized the corona had made its farthest retreat and was beginning to return.

He crossed yet another vine, noting with vague puzzlement that its lock was below instead of above him. Then something snapped awake in his mind. This was what he'd been looking for! He shook himself awake, sipped a little water, and turned down the vine. Buld had been afraid of the corona, or had pretended to be. If he'd taken the column darkward, his lock would be down here.

When he was close to the lock he stopped, with an odd reluctance. The trek had become such a part of him, it was somehow wrong that it should be over. Yet this was a new lock. The puffs of latex where the stakes were driven into the vine hadn't collapsed yet, nor had the vine begun to grow over its wounds.

He looked around at the scattered debris, and recognized some of it. Where was the menagerie? He stared back across country.

Finally he saw one of the carts, tilted, with one wheel missing, its towropes sprawled where they'd fallen. They hadn't done much salvaging; even precious rope lay around. The tunnel wasn't nearly deep enough, so that the lock met the vine very near the top, and at a bad angle.

At least, they were in a vine. They wouldn't starve, though they might get pretty lean if they had to live on vine-fruit. And he hadn't come here to commiserate. First of all, he had to get into the vine, and this was no place to do it. He ate and drank a little more, then squeezed the last of the water into his suit-reservoir. He salvaged some rope and started down the vine.

What he wanted was a section too cold to have been explored yet, but not too far from the lock. He settled for the twentieth one down.

He chose a spot twenty strides below a leafage, and began scraping away the gravel. When he'd cleared a circle of hull, he jabbed the point of the saw in and twisted. It was very hard cutting, but he chipped out a hole and was finally able to thrust the saw through. Bits of vine blew out and thudded on his helmet, and he was splattered with strings of latex. The blast of air was like a solid thing. The hole plugged

quickly and he shoved the point in again and began sawing a straight line, holding his arm out to one side to avoid the latex. The stuff set very fast, and stuck hard, out here.

The cut sealed fast behind the saw, but it left a line of weakness. He sawed three sides of a rectangle big enough to drop through, suit and all. Then he paused to consider. If he sawed the fourth side, the plug might blow out and smash him like a bug. If he left part of the fourth side it might act as a hinge, so the plug would just flap back.

When he'd done that, he still had to go around the old cut again. The plug blew out with awesome force, but the hinge held. The saw was knocked from his hand and bent, but he wasn't hurt. Now the blast of air was incredible. Latex, draining from capillaries, formed strings in a virtual tube around it, whipping madly. The blast went on so long he began to fear the whole vine was emptying. At last, though, it slackened. Eventually, he could peer in.

The section was full of mist, but seemed to be clearing. The luminous moss was still glowing, though it might be dead now. He tied a rope around the hinge and let it fall inside. He tugged at the flap, and it moved slowly.

Eventually, to get it shut be-

bind him, he had to tie another rope around the free end and strain at it. When it was closed—with the ropes still dangling—it stayed. Oozing latex should seal it fast, and the vine would soon heal.

He cut off one rope a few feet down to tie on the end of the other. Together, they reached within an easy drop of the bottom. He'd cut a little too far from the leafage, though, and had to drop into water. He felt ice crumble beneath him, but the suit protected him.

Now, if what he'd been told about vines was correct, he was in good shape. He climbed toward the throat, where the bulbous growths had swollen shut like a clenched fist. If they didn't open until capillaries filled the section, he was in for a long wait.

However, there was evidently, as he'd been told, some other mechanism or intelligence in the vine. In not more than three or four kilopulses, the throat began to open and air poured in. When the blast lessened, he squeezed through and started up the vine.

When water filled only a fourth of the diameter, he got out of his suit and hid it, taking part of his food with him. The air was chilly, but it felt wonderful to be out of the suit.

He found that the vine wasn't a completely barren one. There

was grass, and wild rice, and insects and lizards, and fish; things that had come through the seedling-shoot from some parent vine. He saw no mammals, and no birds.

He'd reached territory where he had to go cautiously, peering into each section before entering it, so he saw the seven people before they saw him.

### XIII

They didn't look well-fed, and they didn't look cheerful.

There were two married couples and three single men. Tem had to think a moment to remember all their names.

Should he show himself? Why not? He had to make contact sometime, and these weren't part of Buld's clique. He walked toward them and called out, "Kliv Jellen!"

The seven of them whirled and peered toward him. Then Kliv's eyes went wide. "Tem!" One of the women screamed. The whole seven fell back.

Tem grinned at them. "Relax. I'm not a ghost."

Kliv was the first to accept that. "Sunn!" he exclaimed, "I'll never doubt miracles again! How—?"

Tem had already decided on a story, or a hint of one. "Ours isn't the only migration that ever trav-

elled." Let them do some guessing.

The others had come forward now. Jellen said wonderingly, "You found another migration? But we thought . . . Well, I see. Buld *did* lie, even though he didn't kill you and Bannow. He said they saw both of you vanish in bursts of flame near that mountain. Some of us doubted it and wanted to go looking for you. It almost came to a fight right then, but they'd grabbed everything that could be used for a weapon. Anyway, we didn't even know what direction to look, so . . ."

"I'm glad you didn't," Tem said. "How did things go after that?"

"Bad. As soon as we were past the mountain, he led us darkward. It was cold, and we made poor time and used too much air. Then we got into some tough country and had to detour. We lost the menagerie, except for some of the fowl; and eleven more people died on the way, and six more escaped with some supplies. We think they surrendered to a vine."

Tem said, "Neena?"

"She stayed with us." Kliv acted a little embarrassed.

"Well," Tem asked, "What'd happened since? Why are the seven of you here alone?"

Kliv said, "Buld has a grip on

everything. We thought he'd probably kill us, because we spoke against him, so we ran. He hasn't come after us yet. I guess he doesn't really have to."

"Did any of the grain get through? And no goats."

"Yes, but no goats."

"You can live without goats," Tem said. He refrained from saying that, if the colony grew prosperous, there might be ways of getting goats. "How many would resist Buld if they had a chance?"

"I don't know. Most of them resent him, but there's not much fight in them. They just want to forget the Outside."

"How many will fight for Buld?"

"His clique, and two or three more. Maybe nine all told."

"Is there much fight in *them*?"

"Yes. They're getting most of what eggs there are, and most of the meat we salvaged. They'll fight to stay on top."

"Well," Tem said, "you haven't much to lose. If you'll follow me, we'll get rid of Buld and make this a decent vine to live in."

The two women showed distress. The men looked at each other. Finally Kliv said, "We'll go with you if you can show us we have a chance."

Tem left the married couples and one of the single men to improvise clubs from vine



fronds and to follow a few sections behind. He, Kliv, and Jellen started up the vine, scouting each section before entering it.

Twelve sections up they found two of Buld's friends, fishing with a net. They were evidently there as an outpost, as each had handy a six-foot wooden staff, sharpened at each end, evidently made from a cart. They wore knives at their belts.

There were only a few clumps of fronds along that side. Tem said to Kliv, "Do you think you could creep fairly close to them?"

"Maybe."

"Pretend you're trying to steal their fish. Get them to chase you this way."

He and Jellen found places in the convolutions of the throat, as far into the other section and as high on the sides as possible. He didn't think Buld's men would be reckless enough to pursue blindly through the throat, but if he could get them close . . . He raised his head enough to peer out.

Kliv was going on all fours. He got within nine or ten strides before his cover played out. Then he leaped toward the bucket of fish just a few steps behind the men.

The farther man glanced up and shouted. The nearer dropped the net and hurled himself toward Kliv, reaching for his knife.

Kliv got a hand on the bucket, then, as the man was on top of him, swung it into the man's face, knocking him off balance. Fish spilled from the bucket. Kliv wheeled and ran with what were left. The two grabbed their spears and came after him, bellowing. Now if they only didn't look up too soon . . . Tem's limbs felt weak and shakey.

Kliv leaped for one of the bulbous growths, and from there to a higher one. The first pursuer jumped mightily, landed on a growth, and struggled for balance as the stuff gave. His eyes fell upon Jellen, who was tensed to spring, and he jerked his spear around.

Without conscious planning, Tem had already launched himself. He arced down, missing the man, but a murderous instinct made him reach out with the saw. It ripped awfully across the right shoulder and the man went down, screaming. Tem landed, tumbled, trying not to cut himself on the saw, then writhed to his feet and faced the second man. But there was no fight left in that one. He just stood, jaw hanging, spear adroop. Tem said, "Drop it!"

They bandaged the hurt one as well as they could, then got the fishnet and cut cords from it to tie both men securely. They waited for their five friends

to come up, left them the prisoners and one knife, and started on.

The next dozen people they met (scattered along the vine, fishing) were friendly or neutral. Tem deliberately used the shock of his reappearance, commandeering instead of asking. He added two reliable men to his advance squad. Since none were armed, he sawed a few clubs out of fronds and left his non-combatants hacking out more with a knife, with instructions to hold the upper end of a certain section. Then he climbed into the throat to scout the section. He hoisted himself to a growth, and without warning confronted two of Buld's cronies starting through.

He made a move as if to retreat, hoping to draw them after him. However, after a moment of gaping, one seized the other and whispered urgently. They both turned and ran. The quick-witted one must have realized Tem would have allies, and that the thing to do was to get to Buld immediately. Tem gestured to his handful to follow him, and leaped after the pair. He drew ahead of his underfed comrades, gaining a little on the quarry. At the end of the section, he bounded far up the curve to see whether they kept going.

They did.

There were several people in

this section, who straightened and stared. Tem yelled for them to intercept the two, but only one moved, and the fugitives threatened him off with their spears. At least, though, the man joined Tem.

Two sections later Tem saw he'd lost the chase. He stopped in the throat, watching the quarry flee up the left-hand side of the fairly wide lake. In their path were about fifteen new huts, with the bulk of the colonists working around them or lounging. The two shouted at the people, threatening them with their spears. The people listlessly allowed themselves to be herded toward the other end of the section.

There was a smaller group of huts there, partway up the curve. Coming at a run were Buld and four other men, all armed with spears.

Tem ran down the slope, shouting. The people looked back and stopped. Buld's pair prodded them on, and now Buld was bellowing at them. Most of the people started on, staring back over their shoulders. One man broke away and ran toward Tem, then several others. Tem heard Neena scream, "Tem!" and saw her start toward him. One of the armed pair herded her back, spear poised. She turned and went with the others, face buried in her hands.

**T**em counted eight men and three women who'd escaped and were running to him. He scanned each face, and didn't think any of them were enemies.

That left about twenty, mostly women, in Buld's hands. Tem went over things mentally. Not counting his own two captives, there were about thirty either with him here, or behind him in the vine. There were five or six unaccounted for, who might be farther up the vine.

The eleven who'd defied Buld just now gathered around Tem. He cut off their questions. "You, and you. Take these women down to where the others are. You other six—will you fight?"

They all nodded.

Tem looked around. Kliv was just coming through the throat. A moment later Jellen and the other three men appeared, panting for breath. Now Tem had eleven with him who'd fight, against Buld and six allies. But Buld had hostages; and if he could recruit a man or two among them, he had plenty of knives and spears.

Buld had the hostages herded up near his own hut now, and his men were busy tying some of them so they couldn't escape. Tem watched with mounting frustration. He could hardly attack now. Of course Buld couldn't afford to kill the hostages—they

**THE MERCURYMEN**

were his security—but what if he killed one at a time? Or threatened to torture them?

Could Tem pretend convincingly that he didn't care what happened to the hostages? No; not if Buld put it to the test.

What if he just seized the vine, moved up it and left Buld penned up here? Again, Buld could use the hostages.

What Tem had to do was work on Buld's nerves somehow, quickly, before he had time to think. Or, try to split away some of Buld's men.

There was the fact of Tem's sudden reappearance, which must be mystifying and dismaying to Buld. While that lasted, could anything be done to amplify it?

What if Tem acted like a ghost, or something else supernatural?

Whatever he did, he ought to get out of this section, so Buld couldn't threaten him with the hostages. Should he go back down the vine? Buld must be wondering what was down there.

Maybe he could act as if there were something frightful down there. Maybe he could even act frightened himself.

**T**hat began to feel promising. He said to Kliv, "How many people up the vine? Any of them hostile?"

Kliv said, "I don't think so.

There are just a few, tending the fowl."

"How far up?"

"Well, the lock's in the next section, and there are a few huts in the one beyond, then two sections with fowl in them."

An idea began to stir. "The lock's in the next section? Where are the suits, and the other stuff?"

"Right under the lock. We just left everything there that we didn't have use for."

Tem thought hard. He turned to Jellen. "Go back downvine and get everyone here in a hurry. Act as if there's something terrible coming up the vine. Look as scared as you can, but don't explain. Can you do that?"

"Yes, but—"

"I'll explain later. Hurry!"

Jellen left. Tem took his other ten to the far end, across the constriction from Buld, and made a show of scouting the throat. Then he waited, acting nervous, paying little attention to Buld but staring downvine. Finally the rest of his people came hurrying into the section. He gestured them on, posted his armed men between them and Buld, got them all through the throat.

Buld called out, "What nonsense are you up to now?"

Tem yelled, "You'd better surrender while you can."

Buld laughed. "I've got these

people here. You can't do anything."

Tem looked as worried as he could. "You'd better let them go." He turned toward the throat, turned back irresolutely, and finally hurried into the throat. He put one man where he could watch Buld and signal Tem if Buld moved.

#### XIV

No ramp up to the lock had been started. Rope ladders dangled the full distance, only a little off the middle of the vine. Equipment, including suits, lay scattered about at the edge of the lake. Tem glanced back at his watchman, then chose two suits. He told the people, "Carry the rest of these upvine. Go at least five sections before you stop, then wait until I come." As they started at him, he said harshly, "Hurry!"

His own bunch stayed with him, but he told them, "Help Kliv and me into these suits, then you go upvine too. Make sure nobody comes back down. We're going to let the air out of this section." He smiled grimly at their expressions and said, "I know what I'm doing."

They trotted off, and he and Kliv began the climb. When he could just see the lookout he'd left, he gestured to the man,

GALAXY

pointed upvine and held up five gloved fingers. The man left his post and started through the section. Tem hoped he'd understand and keep going.

The climb was long and nerve-wracking, with the ladders swaying, and carrying the saw in one hand didn't make it easier. Finally, though, Kliv reached the crude platform hung below the lock, and reached down to give Tem a hand.

The inner plug came unseated easily, since there was still pressure in the lock outside, maintained by leakage. They wedged it where it couldn't swing shut, and stepped out.

Getting the outer plug loose, of course, would be beyond their strength, lacking levers to pry with. He looked for a thin spot in the rubber, found one where it bulged, and poked the saw at it gingerly. He thought it would penetrate easily when the time came.

Now Kliv's face showed understanding, and horror, but he didn't protest. They went to where they could peer obliquely into the section, and waited.

He was gambling that Buld would come scouting without being prudent enough to bring hostages. The man would suspect a trap, of course, but he wouldn't be sure, and as time passed his nerves would get worse. If he did

bring hostages, maybe he could be trapped anyway—it should be possible to let enough air out of the section to render everyone in it unconscious, without killing them, then get the inner plug back in place.

Time dragged. Kliv got up and paced in the lock, but Tem stayed where he was, grimly. At last Buld and another man trotted into sight, headed upvine.

By the time Tem could see them, they were a third of the way into the section. He tensed. Should he spring the trap now, or wait? He didn't know how quickly the throat would close when air started to escape. Would they have time to get back? Would Buld glance up, and understand the significance of the open inner plug?

Buld stopped suddenly, eyes fixed on the spot where the suits had been. Tem leaped away from the opening, shoved Kliv to safety, jabbed the saw into the thin spot. The rubber split, and the split ran halfway around the lock. A mighty wind knocked Tem down. His suit puffed suddenly rigid. He crawled toward the vine opening, but the wind shoved him aside. He hauled himself clear of it, got to where he could see in slantingly. Buld and the other men were sprinting downvine. They went out of

sight, and Tem strained his neck to see farther, but could not.

He had to wait, not knowing whether they'd got clear or not, for what seemed eternity. Mist formed around him. He went to touch helmets with Kliv, but the wild air battering on his suit drowned out their voices. Finally he forced himself to sit down and wait.

At long last the wind lessened, and he could push his way to the side of the opening and force his head in.

The two men lay at the throat where they'd collapsed, clawing at the great growths. The throat was squeezed tight.

He raised a hand to beckon Kliv, intending to say they should get inside to the platform and be ready to replace the inner plug before all the air was gone. But he hesitated, and Kliv stared at him, obviously seeing his indecision.

Tem tried to sort out the muddle in his own mind. He'd come all this way to kill Buld, hadn't he? He wasn't sure. A man's motives seemed to be such mysterious things. He couldn't feel the slightest concern now whether Buld, and the other man, died or not. Maybe all he'd really wanted was to regain his leadership and prove that he was the better man.

A kilopulse longer, maybe less than that, and the air in the sec-

tion would be too thin. Right now, he could take Buld alive and let the colony decide what to do with him. On the other hand, Buld would always be a threat to the colony. They'd have to watch him constantly. If they . . .

*They?*

Yes, he said to himself, I'd have known it long ago if I'd stopped to think about it. I'm not of this colony any more. I'm not of the vines.

As long as he didn't care one way or another, why leave Buld to worry the colony? Why even bother them with the decision?

He stayed where he was and watched the bodies begin to puff. When he was sure they were dead, but before they got too ugly, he motioned Kliv and they crawled in to replace the plug.

## XV

As soon as the first urgencies were taken care of, he and Neena strolled a few sections below the lock. He had to assure her several times that none of the throats would suddenly squeeze shut without reason, or with diabolical reason, as they were passing through.

She said, "I didn't take up with anyone else, but I want to tell you the truth. I did think about it. There was one man who

paid special attention to me, and I didn't avoid him. I thought —" She searched his face. He said nothing, and she went on, "I was sure you were dead, and I thought they'd make me Bottom Caste because I didn't belong; but if I married this man, they wouldn't."

He said casually, "Was it Buld?"

She colored. "No. But it was one of his friends."

He said, "I don't think anyone would have blamed you. I wouldn't."

They walked in silence for a while, then she said, "It does make things complicated, though. They'll think—" She stopped and faced him. "I want to be sure you don't think it!"

"Think what?"

"That I just want to be the Chief's wife."

He nearly smiled at that. "I don't think that. And they won't, because I'm not going to be Chief."

She stared at him. "What do you mean?"

"Will you try to imagine it like this? Suppose we went to another vine, the two of us, that was an easier trip from here. I don't mean a deserted vine. There'd be other people, and we wouldn't be Bottom Caste, and we'd be comfortable. We'd just be plain people. Would you come?"

The bewilderment in her eyes made him put an arm around her shoulders. "Well?" he said, for he daren't waste much time.

She drew back. "You mean, put on a suit again and go Outside? And leave everyone we know?"

"Maybe one or two others could go with us."

Suddenly she flushed.

"What's gone wrong with you? Why can't you be Chief and — and live a normal life?"

"I'm not going to be Chief. I'm sorry, Neena. I want you to come with me, but I'm not going to stay."

She wouldn't talk for a while, just sobbed and thrust his hands away. Finally he said, "Do you suppose you might feel differently if you had some time to think about it?"

She pulled herself together. "Would we be married and live here while I think?"

This time he did smile. He couldn't be angry with her; she'd been through more than any girl deserved in a lifetime. "Suppose I came back, in another orbit or two. Would you want to talk about it again?"

"I don't know. You don't seem to — to care about me at all. I feel as if you were some — I feel as if I didn't know you."

He kissed her gently on the forehead and left. He didn't look

back and she didn't call after him.

He hurried, for he had to get to his hidden suit before anyone came looking for him. He felt badly about her, but he had to admit that his other feeling was relief. People did change. He wasn't really Tem any more. He didn't even remember, exactly, what Tem had been like.

His mind grew busy with schemes for getting back to the cave. There'd be difficulty leaving the vine by the way he'd entered, without getting blown out

through the hole; but with some arrangement he could do it. He'd be on short rations for the trip. And he'd have to talk fast, to convince Oskir and Hannult he hadn't given any secrets away to the Vinies.

Vaguely, he wondered if it were quite normal for a young man to walk away from a really pretty girl like that . . .

But before he was out of the vine, Neena was out of his mind. There was a whole worldful of other things to be pondered. A whole skyful, in fact.

— C. C. MacAPP



## FORECAST

Science-fiction writers may not be the most widely traveled human beings alive, but they're pretty close. Talking to some of our contributors gives us a dizzying sense of what a small world it has indeed become. We don't know of any science-fiction writer who has spent much time in Antarctica, nor can we think of any who has been in mainland China—recently—but when you've said that you've said it all.

Two current wanderers are Cordwainer Smith and Jack Vance. Smith has been doing field work in anthropology among the Maoris of the southwest Pacific, Vance is working his way around the world in a westerly direction at a pace which ought to get him back to California in a year or two. In their travels both stopped briefly in Tahiti—long enough to finish a couple of short novels; and we're pleased to be able to say we're going to be publishing both. Smith's is called *Under Old Earth* and it will be in the next issue. Jack Vance's *The Last Castle*, will run shortly thereafter. And besides their place of origin, both have one thing in common: each represents a very good writer at the top of his form. . . .



GALACTIC CONSUMER REPORTS No. 1 —

## "Inexpensive Time Machines"

by JOHN BRUNNER

*New! This Galaxy service saves  
you money and repair headaches  
on every time machine you buy!*

*Extract from GOOD BUY, published by the Consolidated Galactic Federation of Consumers' Association, issue dated January 2329 ESY (Earthside Standard Year)*

### *Inexpensive Time Machines*

(Note: It has been our custom so far to confine our tests principally to those items most commonly purchased by our members — as a rough working guide, products of which more than ten million items were sold in a

year. However, with the rising standard of galactic living, we have been receiving many requests for assessments of products selling in small quantities but individually representing a considerable investment of credit. Testing such products is in line with our basic aim — the restoration of galactic craftsmanship to its pristine peak — and the following is the first of a series which will include inexpensive faster-than-light powerboats, solar pleasure-yachts, and do-it-yourself matter transmuters.)

## *Introduction*

Experiments with time travel on the Asimov-Notsodusti principle were made on Logaia as long ago as 2107, but a string of spectacular accidents—too notorious to be described in detail here—led to legislation confining its use to rare and extremely costly government-authorized research trips.

About a century ago, however (recent feedback has made the actual date so fluid as to be impossible of definition), a post-humous discussion with Einstein enabled Dr. Ajax Yak of the University of Spica to formulate the fundamental equations of petrified field theory. The light shed on the subject by his celebrated postulate that yaktion and re-yaktion are equal and apposite so simplified time travel that the legislation was subsequently repealed and a limited market was opened for the private sale of time machines.

Acceptable standards for the safety and performance of these machines have been laid down on Earth, Osiris, Confucius and one or two other planets, and a Galactic Standard is reportedly in draft. Unfortunately, these do not have the force of law, and we think they should—for, as all our members will have seen, cut-price time machines are now being widely advertised and time

travel is bidding fair to rival space travel as a popular vacation pastime. We cannot too strongly advise our members against accepting the claims of advertisers without question.

## *Brands tested*

Most major home-appliance manufacturers offer time machines in their current catalogues, and we hope in due course to make a thorough survey of the field. However, those offered at ten thousand credits or less are most likely to sell in large numbers, so we decided to conduct tests on two samples of each model we found available below that limit.

As always, we purchased the samples anonymously through regular trade channels.

We bought two samples of each of two models we found offered at discount rates below our price ceiling (the **WORLD-LINE WANDERER** and the **CHRONOKINETOR**); one each at regular and discount rates of two models whose basic price was under Cr. 10,000 (The **SUPER SHIFTER** and the **TEMPORA MUTANTUR**); and two each of two models sold exclusively in the discount market (the **ANY-TIME HOPPER** and the **ETERNITY TWISTER**—the latter, incidentally, being described as “imported”).

In order to complete a full range of tests on all models, where necessary we bought replacements for samples that failed during the course of our survey.

### *Appearance and finish*

In general all machines were of satisfactory standard, although one of the diamond instrument lights in the WORLDLINE WANDERER had a flaw, while the gold and platinum inlay used for the floor of the SUPER SHIFTER was rated "cheap and garish" by all but one of our test panel.

The inside doorhandles of the ANYTIME HOPPER came off the first time we used them and had to be replaced. A 15-cm length of 100-kv. wave-guide tube fits the socket, and we recommend this to be substituted prior to using the machine, as waveguide tube of this calibre is not easily available in many popular historic periods.

The emergency kits of tools and spares were adequate on all but the ETERNITY TWISTER, where the ratiocinator proved to be broken, the service manual was printed back-to-front in Arabic (presumably a computer error at the factory), and the 47 spare transistors were found to be lumps of contaminated polystyrene.

### *Guarantees*

None of the guarantees was wholly satisfactory. That offered with the WORLDLINE WANDERER was almost acceptable, in that it provided assured replacement of any part revealing faults due to poor workmanship during the first hundred hours of subjective occupation, but the owner was obliged to make his own arrangements for the return of the parts to the factory — not easy on a trip of any length.

We recommend taking out a policy for retemperation insurance; several companies offer these at reasonable rates.

The guarantee supplied with the ETERNITY TWISTER ran to four hundred and forty-eight pages of small print, and required a computer evaluation to make it comprehensible. It proved to render the purchaser liable to suit by the importers of the machine if he made any claim against them for any reason whatsoever, and we feel that this should not be signed and returned to the company before use, as is stated.

### *Power source, drive and controls*

The WORLDLINE WANDERER had a built-in fusion plant, of high reliability and output, although the cork of the magnetic bottle failed frequently on both our samples and was dif-

ficult to replace with the Mobius wrench supplied, as the handle was too short.

All the others bar one had conventional fission piles. Only the CHRONOKINETOR offered automatic dumping of exhausted fuel rods — the others had to be cleared manually. The makers of the TEMPORA MUTANTUR operate an exchange service for their rods, a good idea, but as yet imperfect from the consumer's viewpoint. One of our testers was instructed to dispatch a consignment of rods while visiting the standard target-area of 1779, and had to wait until 1811 for the replacements owing to mislabelling of the package at the factory. The single exception mentioned above was the ETERNITY TWISTER, powered by NiFe batteries supplemented by a pedal-driven generator. The importers claim that this provides an ideal source of exercise to toughen-up users on the way to barbaric time-zones. Our testers followed the directions supplied, but all bar one (silver medallist for weight-lifting in the last Jovian Olympics) found it necessary to rest up for a week or so on arrival. Several sustained severe muscle fatigue.

In five of the six machines, the drive mechanism was a recognizable variant of the original Yak design, and any qualified service

mechanic ought to be able to cure minor faults. (NB: Mechanics are not available earlier than 2304 except to users of the SUPER SHIFTER, whose parent company has launched a training scheme for native labor in a few popular vacation-zones further back. A list of these comes with the machine.)

The debatable exception to the foregoing was the ETERNITY TWISTER, on which we are unable to make a positive statement, as the petrified field was generated in a black box labelled "Not to be Opened". Attempts to inspect the interior resulted in messy, though not fatal, explosions; we consider this a serious design fault.

The controls on the cheaper machines, though stark, were adequate, with fair accessibility. We faulted the CHRONOKINETOR because its three-vee displays make an annoying reflection in the master time-range dial and the pointer is difficult to see; the TEMPORA MUTANTUR because it gave twice as much space on the dashboard to three-vee, piped music, sensishow outputs and perfumolator switches as it did to the actual controls; and the WORLDLINE WANDERER because the forward and reverse lever had been mislabelled at the factory on one of our samples. Putting it over

for the first trial filled the testing lab with a horde of noisy and ill-dressed savages, later identified as Mongols, who defied our best attempts to return them to the machine and eventually had to be deported under a government regulation forbidding unauthorized entry to the present.

The ETERNITY TWISTER had a good range of controls and instruments. Inspection, however, revealed that four out of a total of eighteen instruments were not connected to anything. One of the range-finding dials on the ANYTIME HOPPER had to be read in a mirror, and we feel its pointer should accordingly be made to rotate anti-clockwise to compensate. (The makers claim that it can be read directly, but if this was the intention we think they should have included a jar of liniment, suitable for stiff necks.

### **Performance**

As already mentioned, the Galactic Standard has not yet been published. We took the Confucian Standard as the basis for more stringent requirements of our tests, modifying it to the Terrestrial Standard in respect of excluded zones.

First we measured the radius of the petrified field (CS and TS: five metres). All passed except two.

On one sample of the ANYTIME HOPPER, the field collapsed to half-size during a test jump to 1898, leaving the tester's head in that year and his feet in the present. Repairs were speedily effected, but unfortunately an enterprising carnival operator discovered the tester's isolated upper portion and for some eight hours before rescue was effected employed it as a novel target in his sideshow. (This was of the type known as an "Aunt Sally", where spectators received prizes for their accuracy in hurling wooden balls at him.)

The importers of the ETERNITY TWISTER state in their advertisements that the radius of their machine's field is "in accordance with the relevant Standards". One of our samples measured 4.1 metres, but the other never did better than 3.7 metres.

The WORLDLINE WANDERER and SUPER SHIFTER expanded to 10 metres without difficulty, and we are recommending that this be made the minimum for the Galactic Standard.

Next, we carried out tests to determine range and accuracy. The method used involves setting the controls at various readings from maximum on down, then engaging maximum power

ten times in succession at each level. The CS lays down 5,000 Confucian years (about 4,762 ESY) as the shortest acceptable range, with an accuracy of plus or minus 1 per cent.

All sustained this over limited distances (below about 1,000 years). However, none were satisfactory on longer trips. In particular, one sample of the CHRONOKINETOR landed twice in the Upper Pleistocene and the other in the Triassic owing to power surges. (We replaced the pile-moderators and both performed satisfactorily after that.) The WORLDLINE WANDERER had a repeatable extreme of 11,421 ESY, well in excess of the Standard, but at this high power-level the cork kept coming out of the bottle.

The ETERNITY TWISTER recorded one maximum of 2,389 years, but this was not repeatable on either sample, and the average for both was only 1 year 17 days. One sample refused to go anywhere until the fuses had been replaced with 5-cm. bus-bars. On the other, the insulation burned out. Inspection revealed that it consisted of badly tanned animal hide. We substituted a modern synthetic and it then completed the test.

Finally, we turned to the question of excluded time-zones, and

here applied the TS rather than the CS because it stipulates a higher conformity with people's prejudices.

Some confusion exists as to the reason for this requirement, so a word of explanation may be in order. It is often thought that the excluded zones are those highly susceptible to paradox feedback, where casual tourists might upset the chain of cause and effect. It is true that these zones are excluded, but not by us. They are patrolled by armed temporal police generally believed to be based around 10,600, and there is no question of tourists being able to get at them.

What we are now referring to are the zones enclosing events in the traditional description of which certain pressure-groups have a vested interest. For example: the wanderings of the Children of Israel; the meditation of Buddha under the bo-tree; the Epiphany; the Sanctification of Emily Dong; the Aspiration of Bert Tuddle — and so forth.

The Standard therefore lays down that machines be fitted with automatic cut-outs, programmed in accordance with various lists selected at the wish of the user. No machine can be held to have passed the Standard unless it operates without flaw in the areas defined by at least one of these lists, of which there are

some two hundred. In fact, to secure as large a share of the market as possible, the makers generally prefer to offer a basic set of twenty or more, with the others as optional extras at additional cost.

It would have been a prohibitively long job to try all the lists on all the machines, so we chose ten of the most popular ones, ten in average demand, and ten favored by minority groups. Our report follows:

**WORLDLINE WANDERER:** Excellent for all Western European lists including Judeo-Christian, but poor on Asiatic and only fair on the remainder.

**SUPER SHIFTER:** Good in all areas except Moslem—the Hegira cut-out failed on both samples.

**TEMPORA MUTANTUR:** Good, but unlikely to be favored by Neo-Pagans, as the list of optional extras does not mention the period of Julian the Apostate.

**CHRONOKINETOR:** Excellent for Hellenists (it is made by a Greek firm), fair in all other areas.

**ANYTIME HOPPER:** Good to fair in all areas, except that when operating in accordance with the Wesleyan list it proved possible to witness the composition of at least 7 hymns.

**ETERNITY TWISTER:** Not

rated. There are cut-outs, and on the surviving sample of those tested they operate astonishingly well—all things considered. However, their action is either absolutely arbitrary, or geared to some exclusion-list not available to the testing staff. It is definite that this list does not match any of the regular Terrestrial requirements. Our testers meticulously visited every area supposed to be inaccessible. An indication of the seriousness of the fault; the unfortunate tester assigned to check on the Aspiration of Bert Tuddle returned to the present suffering from uncontrollable hysteria, and his report was delayed for three hours while we tried to make him stop laughing.

### VALUE FOR CREDITS

Apart from the episode of the invading Mongols, the **WORLDLINE WANDERER**—the most expensive machine tested—performed well and met the various Standards applied. All the others, even though less costly, displayed faults which we regard as potentially dangerous. We therefore name as our **Best Buy**:

**WORLDLINE WANDERER** at Cr. 9,768.10 (recommended Earthside retail price).

Members prepared to sacrifice some degree of performance for other considerations may prefer

an alternative. The SUPER SHIFTER may appeal to some for its greater comfort, while others — perhaps those who get bored very easily — may select the TEMPORA MUTANTUR for its wide range of entertainment facilities. We do not, however, feel that either should be bought without a good retemperation policy.

#### NOT RECOMMENDED

ETERNITY TWISTER at Cr 3,125.50 (maximum discount found by our purchasing agents).

We became disturbed after the episode of the burning insulation (see *Performance* above) and sent samples of the animal hide to be identified. When it was stated to be Logaian lizardskin, we grew suspicious and carried out further inquiries.

It turns out that these machines are being imported from

2107. They were built to the design of a self-taught "scientist" named Brong, who was left with about thirty million of them on his hands when time travel was restricted by law. Taking advantage of the recent repeal of these regulations, the importers now marketing them bought his entire surplus at a price alleged to be Cr. 0.18 apiece. We have reported this blatant profiteering to the Galactic Chamber of Commerce. Our opinion is that even the purchase price of eighteen centicredits is too high to make them value for money. We consulted a scrapdealer and he offered us Cr. 0.11.

We hope to report users' experiences in a future issue, and shall be glad to hear from members who have purchased any of the foregoing products.

— JOHN BRUNNER

The big news in *If* is—

## ROBERT A. HEINLEIN

One of science-fiction's all-time greats brings you his finest story in years—now running in *If*. Don't miss it!

### The Moon Is A Harsh Mistress

The thrilling new novel of the wars that liberated Luna!

Start it now in *If*—and watch for the great novels by Keith Laumer and Rosel Brown, Algis Budrys and others that will make 1966 *If*'s best year!



# Laugh Along With Franz

by NORMAN KAGAN

Illustrated by GIUNTA

**Technological unemployment had arrived. Man had nothing to do—except to work harder than ever!**

***Alienated Vote: "I cannot vote for any candidate or issue. None of them seem to have anything to do with the real problems of our nation and my life. I think there is something wrong with our society which requires a more fundamental change."***

***—the so-called "Kafka Ballot" from the voting machines, U. S. of A.***

***circa 1976 and after.***

**I**

**H**is Tuesday had worked out free, so Zirkle chose to serve the machines. The mechanisms that had made most men superfluous and egged the rest on towards madness still required a few masters. The operator's saddle of N.Y.M.'s device paid ten dollars an hour, he'd have been a fool to turn it down.

Though it was a pittance beside the machine's wage: twenty dollars a moment. Phantom money; the pay for a thousand unemployed, unemployable souls in the nation's Emotionally Disturbed Areas.

Barbara stirred and mumbled beside him; he kissed her small happy face and pushed back the long brown hair. She was wonderful in his bed; he looked at her long pale legs for a moment and sighed, then covered them and began to dress. He tried to think about the machine because to think about her would make him want to look at her and then touch her and hold her and then he'd never get out of here. What a wonderful body! Bodies, bodies, ripe young flesh, ah! . . .

Better bodies than minds and words; she was so quiet to strangers, silent but provocative in pullover and jeans with her long brown hair down behind her. But what she thought. How to get along with her? She was hypersensitive, and she *knew* she was hypersensitive and adequate; they'd gone to bed on their *second date* to show he cared for her and *why* are you such a cold son-of-a-bitch, cold, cold, I know but aren't our bodies fun, our bodies, don't think just bodies . . .

"Michael?" she smiled up at him.

"I've got to go or I'll be late, Barbara. You know."

"Can't you stay. I'll go out and get us breakfast."

"It's forty bucks, kid — listen, I'll call you at twelve."

"It was my fault about last night, Michael," she said faintly, then huskily. "I mean it. I —"

"Okay, fine, but I really got to go."

"All right, Michael." She smiled lazily and pulled the covers up to her chin again half pout, half invitation. Oh, boy, down those stairs marry her next week but let's get going.

Downstairs it was a cold-bright November morning. Zirkle put his fists in his windbreaker against the brisk wind. The Village at this hour was shabby but sane; brick and stone and concrete buildings that were human sized, but the behemoths that hung their dead tons above everyone's heads uptown. Zirkle hardly saw them; self-obsessed, or Barbara-obsessed. He never noticed the dead handbills in the street, or sign that read "Election Day hours; 8:00-1:00" beside the large brass plate; "Computer Facility: Courant Institute of Mathematical Sciences; New York Multiversity". With some Chock Full 'o Nuts coffee warming his middle he

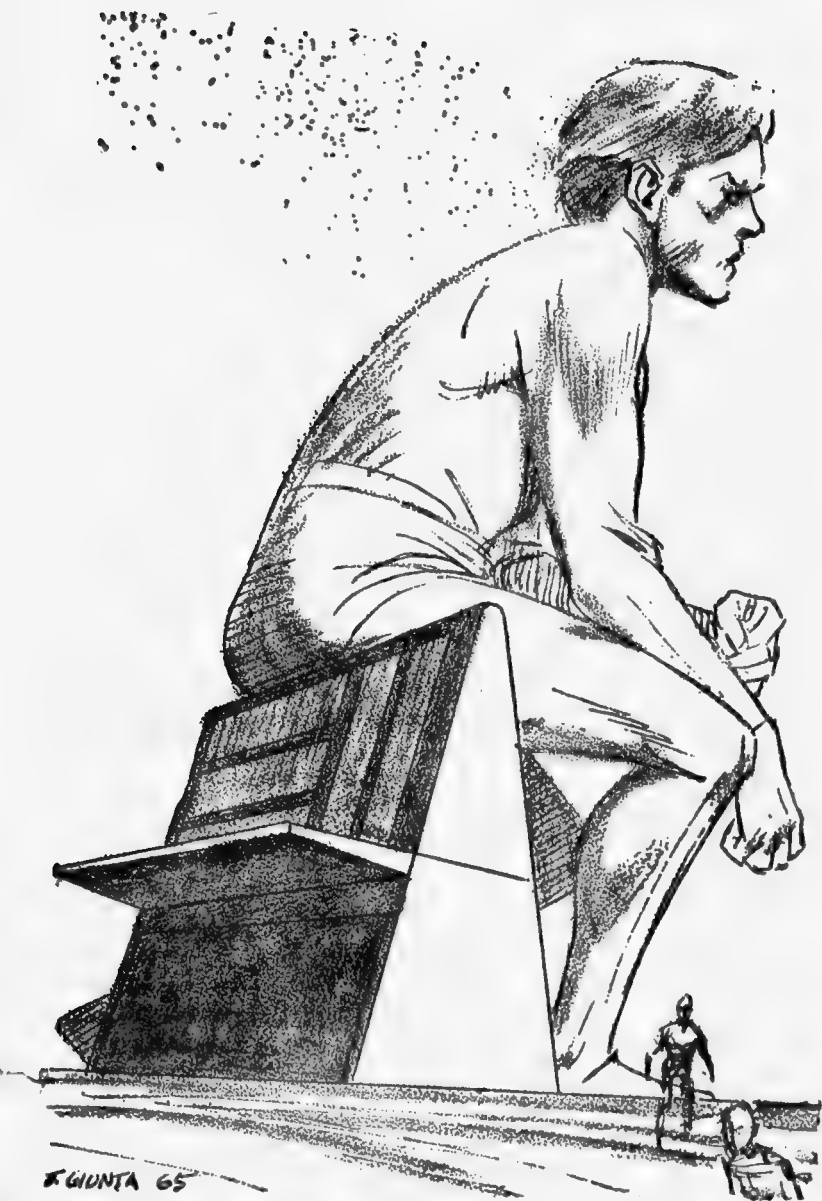


FIGURA 65  
LAUGH ALONG WITH FRANZ

took the elevator up to the machine room.

The brightly lit room was nearly silent. In the middle, of course, was the big I.C.M. alph-sub-ninety; a dozen different units connected beneath the floor. At one side a printer stuttered, tape drives raced and paused, shivering in their vacuum columns. Here was the control board, studs and buttons and little GO-boards of lights that blinked and twinkled patterns. Seated at it was the operator; an expressionless man named Kernan. A few other technicians, shirt sleeved, unshaven, moved silently about. The machine ran around the clock except for maintenance time; while Boeing or G.M. didn't have a problem, Los Alamos could always pay for some time. On the lintel of the console was the brief legend; I.C.M. is here to stay.

Zirkle asked the young man what was running, to which Kernan said briskly; "Randall's replacing me—you're programming for some kind of social thing."

Zirkle shrugged; five dollars an hour was five dollars an hour. He walked out of the Machine Room past the Negress receptionist and down the corridor to the Programmer's Library.

The pine-paneled, linoleum-floored, air-conditioned halls of

an I.C.M. installation always made him think of a submarine, or a missile-launching site or shelter. Always the funny tension, as if the ghosts of the millions that automation had replaced inhabited the machines, as if the mechanisms had somehow taken the spirit along with the function of those useless people. The Emotionally Disturbed Areas were where zombies dwelt. *I.C.M. is here to stay.*

Zirkle thought about Barbara. There she was in front of him; beautiful and why shouldn't she be? And the old logic—you think you can keep from getting involved. It's just more words and mucous membranes, but all of a sudden she only talks to you and you ask why not, why not? She's so much fun and you never felt so good before, to be involved in something . . .

Half a dozen men working in the bright room. Zirkle spotted Randall and Dr. Progoff, the Center's boss, a big, bald man who'd taken his Ph.D. in pure number theory then switched into computers and applied math. He was talking with a thin, well-dressed faculty member. "—sampling is all finished, but how about the machine time? It won't make much sense to finish the run after the real results are in?"

And then Zirkle remembered. But it was too late to register, of course, and anyway it didn't matter, they were all the same, if he voted he'd —

"Vote for Franz!" the faculty man said angrily. "What do you expect, you've alienated them from everything, even themselves? That's why I don't want you to —"

"What difference does it make?" grumbled the mathematician. "The other results have been out for days, and there'll be machines running right along with the balloting."

"I'm talking about self-fulfilling prophecy — the people silly enough to want to have voted for the winner, or uncaring enough to want to have voted for the winner, or uncaring enough to let a machine do their — oh, never mind, never mind, I'll get the decks and the University authorization."

"Fine," said Progoff. "Oh, Zirkle, please go along with Professor Lerner here. When you come back I want you to debug his program and we'll start it at, oh, say eleven, when that neutrino detection study thing is finished."

Zirkle nodded, and followed the thin man, who seemed to be a sociologist, out to the elevators. They got on in silence, but as the car started down the old-

er man said irritably; "Excuse me, but are you planning to vote today? Please don't lie to me."

"Oh, oh, yes sir."

"Well, it looks like you and I will be about the only ones that do."

Outside the day was warming up. Students in bright jackets or coats moved towards the buildings. In the park and the shabby streets around the university, however, the inevitable idlers had begun to cluster. A newsstand caught his eye; AUTOMATION RIOTS, SUBWAY VIOLENCE, HARLEM SIMMERS. But New York headlines had read like that as far back as he could remember.

"Idiots!" grumbled Lerner. "But how can you blame them? I don't know what can be done, that's sure. There's nothing for 'em to do."

Zirkle thought about Barbara, but asked, "I've been wondering about casting a Kafka ballot, sir. It's not that I feel alienated from society, it's just that there doesn't seem to be much choice between —" (And I'd say: will you marry me? And Barbara would say: no, but I admire your taste.)

"No, no, never do that," cried Lerner, as they crossed the street. "That's the danger of the Kafka ballot — it short circuits think-

ing, people feel rotten so they push the 'Franz' toggle. Originally, the idea was to find out who just didn't care to vote, and who was truly disenchanted. It backfired—it turned out everyone is alienated and unhappy. And our system is now so complex, so limited by the international situation, so geared to accepting technical change, that we can't make fundamental changes in it, so — more alienation, unhappiness, and four years later more Kafka ballots."

The classes changed, and for a few moments they were pushed back along the corridor by a flood of students. The two managed to enter an elevator. As the door closed Zirkle murmured, "I see." (Keep her in my room if I can. Physical contact, dependence important. Story of the guy that sent his girl a love letter every day. So she married the mailman.)

The doors opened, and Lerner swung out and down the corridor. A bearded student in a lab smock got on, whistling; "Girls are like pianos—upright or grand!" the newest song of teen favorite Beatle X, the Ghana Wailer.

Lerner unlocked the door to his office. "Less than fifty million voted in the last election. What happens if Franz gets a majority? What then? We'll have

a complete collapse of government morale. How could Congress act, how could the President do anything, when everyone knows nobody really wants them at all?"

Zirkle shrugged, it was their tough luck. He never trusted those dirty politicians. Maybe they could have a robot president?

"You know, there's one thing that might apply. It's in the U.S. Constitution, but it's never been used." The two stood waiting for the elevator, burdened down with tapes and card decks. "If two thirds of the State Legislatures ask for a Constitutional Convention, Congress has to call it. What the C.C. recommends is constitutional if three quarters of the state legislatures approve. If things get bad enough, it might happen. They could abolish the Presidency, cancel the Civil Rights Laws, put controls on I.C.M. and scientists and engineers. My God! They could —"

Lerner was silent until they were back in the Computer Facility. "It's possible, it's possible," he murmured. "The statistics on crime, drug addiction, mental illness. They could —" he gestured out at the park, where the crowd of idlers mixed with the guitar-and-throngs set. "Look at 'em, punch-drunk, slap-

happy already, surrendered — they — I might be one of the last sociologists. There won't be any society left to study."

"Ready to get started?" rumbled Progoff behind him. The big mathematician sported a button with the legend; I.C.M. is here to stay. Lerner seemed to take heart when he saw it.

"Surely, Dr. Progoff. I'd like to speak with you for a moment or two first, however." The two of them went into Progoff's office.

"Mike?" said Randall, looking up from his flow charts and systems manuals. "Come on, let's take a break. I could use it."

"All right," said the shaggy young man. He was feeling odd; he wanted his routine, his console and card decks; Barbara kept mixing into his thoughts. Professional life should be an algorithm.

The two young men went to the Programmer's Lounge for coffee. Zirkle liked Randall, a skinny intense young man whose only vice was getting his friends free gifts from the Book-of-the-Month, Record-of-the-Month, Fruit-of-the-Month Clubs, etc., by using his professional knowledge to alter their I.C.M. business reply cards.

Randall was just asking Zirkle to his friend's apartment to

watch the election returns when the lounge's ceiling speakers began to rumble.

## II

"This is your International Computing Machines science reporter with our special Election Day news summary, Science in the News! Stand by . . . Flash! N.A.S.A. scientists announce the Jove 67, the sixty-seventh attempt to put a robot probe around the planet Jupiter, is completely successful. The machine is circling the giant planet in an almost perfect orbit. Werner and his rocket team are jubilant. Unfortunately, the Jove 67's telemetry system failed at power track, so we are receiving no data at all. But, as Werner has pointed out, the instruments are going round and round perfectly! N.A.S.A. will ask six billion dollars for twenty more probes for Project Jove . . . Congratulations are in order for the two hundred Eastinghouse Science Talent Hunt Winners! The Bronx High School of Science has the most winners, as usual, including the first five: Ephraim Goldstein, Dennis Steinross, David Einsteinmann, Keither Auerstein, and Steiner Steinstein! Steiner Steinstein, the number one man, has won a five-year Accelerated Ph.D.

Scholarship to Cal Tech. Steiner's winning entry was a study of the sex life of pigeons.

"Grinning, the pimply, four-eyed adolescent's acknowledgment was, 'To Satan with Playmates! Give me pigeons every time!' . . . Tragedy in an Emotionally Disturbed Area! Tragedy struck this week at the I.C.M.'s 'Cavalcade of Wisdom', a traveling exhibit touring America's Emotionally Disturbed Areas. According to the official report: The information booklets *Fortran is Fun* and *Your Exciting Future as an I.C.M. Programmer* were distributed to the crowd. The *Sing-a-Song-of-Sets* and *Binary Math Bonanza* exhibitions were also deployed, and an announcer exhorted the crowds to join I.C.M. He was answered with boos, cat-calls and cries of 'Give us real work!' 'Programming what? How to blow us all up?' and 'Build your own Doomsday machines, Dr. Strangelove!' Several rocks were thrown at the exhibit. A fusillade of rotten food and other materials knocked down the announcer, whereupon the security guards opened up on the dirty non-incorporates with tear gas and machine guns. Casualties were heavy — uh, ahem, I.C.M. has decided to discontinue the 'Cavalcades of Wisdom', at least temporarily. 'I can't understand

why young people are reluctant to work towards progress, freedom and happiness by doing what I say as I.C.M. workers —' said corporate executive Allen Rosenberg. 'Programming as the ideal occupation for modern man!' . . .

"Success Story! N.A.S.A. scientists have just finished their Progress Report to Congress on their Project Lucifer. The five hundred million dollar Moon Station, Project Lucifer, is the outgrowth of the 50 billion dollar Project Cerberus, the temporary moon station, which came out of the five billion dollar Project Apollo moon landing. Justifying Apollo, Cerberus and Lucifer, which do not seem to have yielded much of practical value, N.A.S.A. chief David Sarlin cried hotly. 'You must believe in pure research — all sorts of wonderful applications come from it in many different areas! Why, we might find a new cheap food supply, or a way to help our emotionally disturbed citizens.' Congressman Steadman asked why the 500 billion should not have been devoted to food research or Disturbed Area Aid, since this might result in great advances for Dr. Sarlin's vaulted space science. Dr. Sarlin did not reply to this, but instead asked for more money for Project Coprophile, an attempt to make



the moon habitable. 'I don't care for the direction we're taking,' despaired Congressman Steadman . . . Automated president? A highly placed authority at Michigan Multiversity revealed today that —"

**"A**utomated president? Then I.C.M. will *really* be here to stay," said Randall. "What're you doing after lunch?"

"Huh? Working this afternoon, I suppose." Zirkle was uneasy, then recalled he had to phone Barbara.

Randall explained about the special election hours, and Zirkle rejoiced; he'd spend the afternoon with his girl.

"Voting?"

"No, I didn't even register, I — maybe we'd better get back."

Their timing was good, a few minutes later Zirkle plunged into the debugging of Lerner's prediction program. The actual sequence was fairly short. Zirkle couldn't find any errors, though he lengthened it slightly to save some execution time. This was the work he loved; to seize a field of logical elements and processes; to order and pattern them; then refine that pattern to the limits of logic and the machine. He was a good programmer, but Barbara wasn't home when he called.

Outside, in the pale warmth of

a November noon, the streets and park were filled with business people, students, and the inevitable unemployed. Sometimes in the shiny corridors you forgot that New York City was itself one of the largest of the E.D.A.s. Lerner's introduction to the predictor program (to give the debugger some common sense) had noted there was precious little healthy, prosperous ground in the United States; madness or poverty; Manhattan or Appalachia; emotionally disturbed or economically depressed; the statistical chart looked like a warped, engorged and withered chessboard instead of a map; as if the logic of the plenty machine had been sickened and grown cancerous when applied to men.

He stood still, wondering what to do, while the crowds surged around him. Their talk was no comfort.

"I mean, the great thing about it is when you're smoking you have this great feeling, like you're really great, and when you stop smoking it *doesn't go away*. You still feel terrific —"

"So the guidance guy said; 'I kid you not. I.C.M. is here to stay, a college degree is the least, and I'll clue you in, there won't be any jobs for less than an M.A., so you'd have to be really crazy to ask for a leave of —"

"Sure, her and her roommate, really emancipated women. If she dares bring a boy in the apartment the other one slams the door, locks it, and gets on the phone to her father. Same thing the other way—"

"**N**othing to do so, we drove around in his Cadillac and asked these women for directions, then grabbed their purses. Feigenbaum wanted to beat this little old lady to death with a baseball bat, but I said —"

"Listen, Louise, let's face it, we're both seniors. It's time to stop going out with Negroes and start going out with pre-dentistry majors."

Maybe she went out for something, or to go to the john. Zirkle made his way through the weary crowd across the Park.

"David, I don't care, I want to spend my whole life with you and I know we can work hard enough to have a healthy marriage and bring up some healthy, un-neurotic children."

He tried to stay with the students; they were twitchy but cheerful. Nevertheless he found it hard to avoid the others; business people fearing for their jobs; young men who'd never held any, baffled behind beards and guitars; worst of all those who could not comprehend any other condition; the empty milling smiling

ones, many of them from minority groups, some of whom had been on the dole for three generations.

At least here they had something to do; sing and laugh and preen themselves on grass or concrete; jeans and pullovers, flannel shirts and short shorts; a place to go, a system of behavior, people to talk to. Only on Lerner's charts was this place labeled "Failure Pool", but how many people could or cared to compete with steel and spacers? For this was The Great New Fact of his world: most people were superfluous.

Zirkle shrugged; Barbara was enough concern. And yet the problem held him. Down streets thick with browsers and the bored he sought faces touched with courage or a private cheer, but there was nothing, or perhaps he'd grown unused to gauging other men; the machine mages had little use for such skills.

And Barbara wasn't there. His people success, his all-absorbing triumph outside numbers, only now he was beginning to see how important; skirts, sweaters, jeans, books and prints and Beatle X records and that was all. The room hovered silently around him, suddenly smaller; the big old drafting table they used for studying, the couch that folded

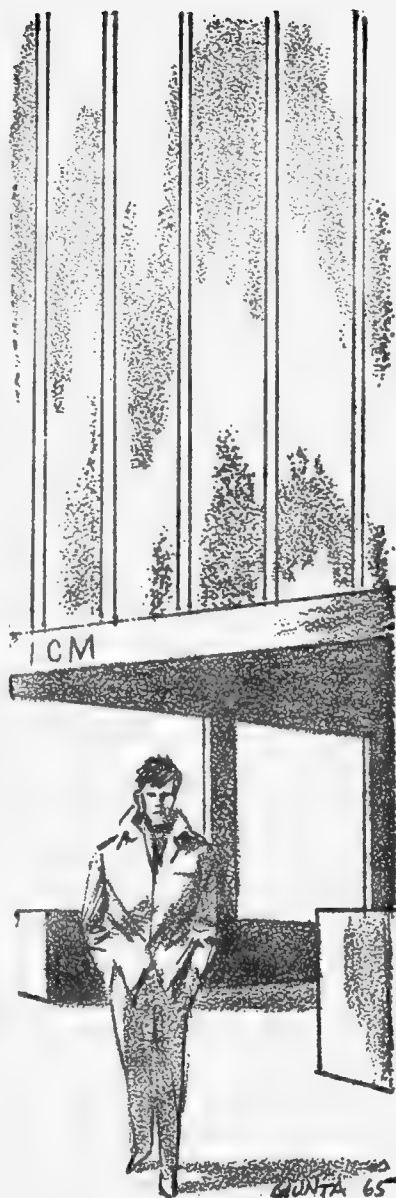
out into a double bed, a bunch of snapshots from this summer taped to the wall.

He could go running about now; the Co-Op, bookstore, library, three sorts of friends becoming one. But the relationship was built on trust and self-trust; pride and confidence shored it up. To go racing around would cancel it out, and besides, well, she knew what was doing, if she didn't want any more of—but he didn't carry that through, just left a note and was down the stairs, out in the street where people tumbled past, his feet at random this Election Day, thinking about Kafka.

### III

He had read *The Castle* and *The Trial* and remembered them. He recalled the Land Surveyor, K., in *The Castle* hopelessly trying to reach the Castle authorities, never even really certain they existed. *The Trial's* poor hero was in an even worse state; ignorant of the reasons for his arrest; his captors refusing to explain or name their superiors, he spent the rest of his life in court, fighting a charge he never even knew. Kafka's world was a hideous, desolate, incomprehensible place.

Yet Michael could see how Kafka might mean a great deal



to some people; sometimes he found himself baffled and enraged by organizations like N.Y. M., or occasionally depressed by his work to the point where it all seemed meaningless. Alienation the feeling was called. Modern life was too big and complex; people couldn't seem to feel in touch with anything, they had no place. With automation's plenty machines, even the goal, duty and purpose of work was gone. So people felt helpless, small, and afraid. He wished he could think about these things another way, but the jargon of sociology was all he knew; Barbara and his courses required nearly all his time. This was perhaps his first walk outside the campus this year.

On impulse, he stepped from the sunlit street into a bar. After his eyes had adjusted to the dark narrow crowded room, he began to casually study the other patrons. In a few minutes he had them divided up.

The first sort might be nervous, but they had energy and vigor. They stood up close to the bar and talked or peered at the overhead screen, or sat at tables in the light. The others stood alone or hung back in the gloom, like the commoners of some occupied land; sullen and sly, waiting for their chance.

He supposed the split was be-

tween those with some goal or satisfactory existence, and those on E.D.A. Relief or close to it.

He turned his attention to the screen.

"Let's turn America into a Fairyland!" a smiling young man with long blond hair and pouting lips cried, "Vote the Gay Ticket!"

"Yes indeed, friends, we're not apologizing anymore. No indeed. In fact, we sincerely believe ours is not just an acceptable way of life, but rather a desirable, noble, and even preferable sort of existence. For one thing," he chided, "we've got the perfect solution to the population explosion!"

A dim cheer, interspaced with laughter and a few cat-calls, went up in the bar.

"So remember, vote the Gay Ticket, and life will be one long camping trip. Elect our candidate—he's a homosex-JEWEL!"

Lerner's introduction had mentioned the Homosexual Party. It was to be expected. In a fragmented world where morality had disappeared, where loyalties were hard to come by and harder to hold to, where work was without purpose and impossible to find anyway, people were desperate for any sort of meaning. Even the schizophrenics, desperate to belong, had their own society with its clever

"Com'on Behind the Wall of Glass."

He raised his Schiltz and swallowed it slowly. Somebody put some money in the jukebox, and the narrow old room shook to Beatle X's "Girls Are Like Pianos — Upright or Grand". Zirkle finished his drink and set it down. The atmosphere of the bar was thick, depressing. He went out into the afternoon.

Ten blocks further north the monoliths towered all above him; frozen explosions of brass and steel and glass. Empty this afternoon, hanging their dead tons above the street. Here were the Administrations, the Channels, the Records, The Home Offices of automated America. Away and beyond the city were the next step; the plenty machines, the behemoths — steel clean — where people used to be. And what were those people going to do now, those and these too, for paperpushing and cardpunching don't really mean much. Let's face it, friends, I.C.M. is most definitely here to stay.

And here was a pebble in his shoe, and he couldn't fit it into an analogy in his train of thought, it hurt a little so Michael stood on one foot and let it drop out, pygmied by the giants' whose sides bore the invisible motto; I.C.M. is here to stay.

He hunkered up his jacket and walked on into the wind. He was suddenly self-conscious about thinking about the Big Problems for so long. Modern man; he philosophizes but doesn't bother to vote.

He knew when he began to think clever that he was running out of brain. Where do you go from here? Most people were now really superfluous, useless really, adrift in some enormous organization. The world was a *Castle*, life was a *Trial*, and why can't you get any further? Why can't you think up something Or-I-GIN-AL, stupid! He walked faster and faster.

So naturally they would get rid of the government. Franz Kafka for President! Why not? The plenty machines satisfied people's material needs, and society was too fragmented, people too worldly wise to accept any ideas or enthusiasms. Consider them now, the "goals" of modern man:

—*space exploration* — but outside his science-fiction friends, he knew few enthusiasts. It was another monolith, too big to like; its heroes too well molded.

—*impoverished nations* — real, true, but their woes seemed too big and too old for single people to enjoy abating. And that problem was finite, and you

must ask — is our way any happier?

—*scientific research* — an endless frontier, perhaps, but why bother after the ten thousandth new element, the gigatillionth law?

—*improve our world* — so everyone lives forever, so people have as many children as possible? Everyone can wander around like this, wondering what for?

He snapped back to the world and ran pell-mell across the street to a Rexall to try to call Barbara at the apartment. No answer. Her home out in Staten Island. No answer. Her crazy friend Sandra. No answer, no answer, no answer, and he pounded his fist softly against the wooden wall of the phone booth below the carved exchange:

Nietzsche: God is dead.

God: Nietzsche is dead.  
You're next!

Zirkle came out of the telephone booth slowly, bought a Milky Way, and started back downtown. He tried to pick up his thoughts once again but it was difficult. He hadn't thought out this way before, and in a few moments realized why: Barbara. Before her he'd gotten most of his satisfaction and self-worth

from his skill with the machines. To wonder if making sure I.C.M. is here to stay was enough meaning for a life was dangerous for someone with only that for a purpose. Barbara had set him free, or almost so. Proof: the impulse to call her.

She was so wonderful. He loved to spend his time with her. And sex, yes, sex, sex, sex but also it was to do things; girls were really so nice, to kid around or study across from her or eat lunch and then go up to sport in their room. And she liked him, loved him. Oh, yes, Barbara had set him free.

Oh, yeah, where was he? Destroying the aspirations of his society. All was meaningless, looked at in that funny harsh way, scientific research was, by order from *The Castle*, becoming a programmer to qualify as a Court Clerk in *The Trial*. I.C.M. is here to stay, was a grunt, a belch, as meaningful as their old slogan *Think*. Think about what? Are we better off since I.C.M. is here to stay? So what?

Sometimes, when he was a little kid, he thought the adults were working on some sort of grand project, some wonderful task, which he would take a part in when he grew up. Now he was grown up, but there was no project. So what to do now?

He walked over two blocks

and down into the subway. Behind him, the enormous buildings began to cast the enormous shadows over the avenues. The wind grew colder and fiercer, and raced up and down and around the giants.

#### IV

Randall's room was a big loft in an old warehouse. Zirkle had already met his roommates: Bennet, the quiet cheerful English major; Oler, the crazy physics major who had to wait till the last term to learn he hated physics, and now taught high-school science to avoid the draft. But Oler was out this evening, as was Barbara when he'd visited their apartment.

The room was typically collegiate, a big raw underheated dim dorm; old wooden desks and chairs, piles of clothing, piles of food, piles of books, piles of lab equipment. Cots. An exotic liquor bottle collection. Chart of the decomposition of a manifold. Swank's "Flip Out Girl of the month." Battered old T.V. that Randall was tuning.

"Get That Degree!" said the device.

"Still too early for the returns," said Randall, his voice muffled from where his slim form was jack-knifed over the set.

"Turn back to that," said Bennet. The English major sat on the arm of one of their big old armchairs, swinging his leg back and forth.

"Fine," said Michael. I.C.M. sponsored that show, and he wanted a check on what he'd been thinking about so much.

The television set roared: "Good evening, ladies and gentlemen, and welcome to *Get That Degree!*—the television show that proves each week that every American without a college degree is a—

**"A WORTHLESS, NO GOOD BUM!**

"Yes, friends, *Get That Degree!* is brought to you by the International Computing Machines Corporation, which also sponsors those other survey-topping (on our own surveys, that is!), those other survey-topping shows: *This Will Be Your Life!* and *This IS the You That Is!*

"Worried about getting into college, folks? You should be scared stiff! With the population explosion, it is getting tougher and tougher! Not enough teachers, not enough classrooms, especially at those *highly rated prestige schools!* !!! Remember that! Why, without a college degree, without those four years and that sheepskin, you won't be able to go to graduate or professional school! And without that,

you're *dead*! No high paying job at a giant corporation! No professional status! Roaming the streets like some kind of a bum! Without that college admission, you might even be drafted, and have some Commie blow your brains out! Obviously you've got to be admitted!" he paused, staring at his audience.

"Later on in the show, we'll tell you how to make sure of that thick admissions letter. No guarantees, of course, but a respectable probability. In case you miss it, be sure to write us at Princeton, New Jersey, our *famous* address. Don't forget our famous motto when planning tomorrow. Remember, 'I.C.M. is here to stay!'

"And now, let's Get That Degree! On our show tonight are four famous people you've probably all heard about, or will hear about soon. And here they all are —"

The cameras dropped away from the announcer, focusing on the stage behind him. Two young men and two older ones waited quietly.

"Let's start with our young people," said the excited announcer. "Here, tonight, representing higher education, is the first prize winner in the Eastinghouse Science Talent Hunt — winning an Accelerated Ph.D.

Scholarship to Cal Tech, a graduate of the New York City Bronx High School of Science, here he is folks — Steiner Steinstein!"

The wizened, bespectacled young man smiled insolently at the audience. "Nice of you to give me all this money," he said coldly.

"Now let's meet the stupid uneducated bum! Leaving school at twelve, this young man did nothing but bum from town to town, take odd jobs, have as many girl friends and as much fun as he could, and learn to play the guitar. Three months ago, he won nationwide acclaim for his fantastic song hit; 'Girls Are Like Pianos — Upright or Grand!' Here he is, folks — Beatle XI!"

The cameras swung to the singer, a rough-looking youngster with his big guitar slung on his back. He smiled.

"Finally, representing authority and tradition, with us are two members of the faculty of New York Multiversity. First, Dr. Progoff of N.Y.M.'s Computing Facility. Dr. Progoff?"

Zirkle's boss stared at the cameras. "I want to wish both boys the best of luck, but I have special feelings for young Steiner Steinstein. America needs people like you, Steiner. The masses of our population need skilled,



university-trained leaders like you." Progoff paused. "The more science, the better, of course — I.C.M. is here to stay, ha-ha- so life gets so complicated we've got to have experts, guys like you to boss the bums — uh, ungifted 85% around. My hat's off to you, Steiner Steinstein!"

"Next," cried the announcer, "Lawrence Lerner, Assistant Professor of Sociology at N.Y.M. Dr. Lerner was one member of the committee that proposed the 'alienated vote', and an expert on our nation's unfortunate Emotionally Disturbed Areas. Dr. Lerner?"

The cameras swung to Lerner's strained features. He spoke slowly.

"I'd rather not speak, if you'll excuse me. It's been a pleasure to be here on your program but I've been involved in the election; in fact I've a prediction program running down at the school, and I'm really exhausted."

"We all understand," said the announcer slowly. Then he paused dramatically.

"Okay, now let's all play *Get That Degree!*"

The cameras panned in on the announcer's sweating, wild-eyed face. "For those of you who've never seen our show, let

me explain that *Get That Degree!* is the finest in modern scientific entertainment, utilizing electronic genius and middle-class morality to discover the wonderful personal potentials of our young folks. Yes, it's the enormous capacities of your youth for spontaneity, individuality, creativity and originality that interest us here at I.C.M."

His voice became a monotone. "Therefore, the two contestants have spent the last three weeks filling out ten thousand multiple-choice and short-answer questions, blacking in those little I.C.M. spaces on a dozen tests — personality, aptitude, achievement, creativity, sociability — everything! The results were fed into one of our I.C.M. alph-sub-ninties, and now, tonight, the game will be resolved. Okay, programmers, let's see the results! Steiner Steinstein first!"

A low hum mounted in pitch and rhythm, lights flashed on a giant mock computer, a siren screamed. Finally the music ceased, and behind the two young men a tremendous crystal panel glowed into life. The cameras closed on it. It read:

#### *I.C.M. Profile:*

##### *Steiner Steinstein*

This brilliant young man has a brilliant future ahead in Modern Science. You will make many brilliant discoveries

Steiner. Perhaps you will even improve *me*. Because you are brilliant and make brilliant discoveries, you will be happy. You will meet and marry a brilliant girl, and you will have many brilliant children. Love and a brilliant life will be yours. Everyone will love you, you brilliant scientist you. It's been a brilliant pleasure to have you as a card deck, running rough through my insides. I like your brilliant record, son.

"Isn't that terrific folks! Isn't he brilliant!

"Now let's see how our bum made out. Programmers, let's have the profile on our other contestant, Beatle X!"

*I.C.M. Profile: Beatle X (?)*

I don't understand what this is about. Is this a person? Oh, well, things look black for this youngster. Though he's had a brief, ephemeral success, I see failure and disaster and doom ahead. His I. Q. is less than 140. He can't program a computer or do research. Bad, bad, bad. All he cares about is making money and having fun. He will probably never have any friends. He will always be depressed. Gloom and doom. He can't solve differential equations. I pity him. He will die a long and painful death.

Notice: I.C.M. results only have a respectable probability and are not to be taken as the Word of God. Low scorers

might consider a career in the U. S. Army, sometimes called "the stupid man's I.C.M.". Or perhaps you are unsuited to an automated culture, and should move to another. Unfortunately, there *are* no others.

"Isn't that terrific, folks," the announcer cried out. "The I.C.M. computer has compared these two very different, unique young men, and discovered the winner and the loser. And the winner is — Mr., but not for long, Steiner Steinstein!"

There was an enormous burst of applause, and the orchestra played two full choruses of "My Son, the Scientist". Steiner bowed modestly in the flame of the spotlight.

"Congratulations, Steiner! And for your prize, I.C.M. is happy to award you a thousand-year post-doctoral fellowship at the Massachusetts Institute of Technology.

"But what about our bum, our loser, Beatle X? Yes, folks, what about the old Beatle?"

A purple spot turned the big shaggy youth's face into a death mask, his guitar into a monster's hump. He stood, shoulders slumped, in the somber cone of light, his baffled face staring at the announcer.

Suddenly, the spot turned blinding white, as if it had be-

come a laser beamed to burn the low-scorer out of existence, like a moth in a torch.

"No folks, I.C.M. hasn't forgotten young X. For young Beatle X still has a chance to Get That Degree, even as you folks in the audience. And he will get it, our mass society needs trained tools and machines. So he'll do it, folks. *He'd damn well better!*" the announcer finished in a scream, his eyes bulging out.

He paused.

"Well, now," the man said cheerily, "before the Beatle tells us his decision, let's have a few words from his friends and relatives. Tell us, old folks, should young Beatle X Get That Degree?"

The lights dimmed down again. On a phosphorescent screen appeared an anonymous city of enormous size. The cameras flung themselves at it, closing in on a great weary apartment tower, filmed a little with smog and filth.

"This is your mother, Beatle," a thin voice quavered. "Please listen to me, dear. Go to their college if you possibly can. Please, do it for me! You made money, but who knows what will happen, who can tell? The only way to be safe is to obey and stay with the big corporations, they're too big to hurt you — I wasn't, I can't, I'm old and weak

and tired, help me, do what they say —"

Another voice, gruff and bitter. "This is your old family doctor, Dr. McCaulley. You listen to I.C.M., they have the money and the power. Go to college, you need that degree, you can't get a job and the world doesn't care, you'll drop dead or go crazy like *that*, nothing matters —"

"This is your brother's friend Harold, Beatle. You remember me, don't you. I — I went crazy, there wasn't any work if you weren't a professor, all we could do was hang around and get government money and I wasn't worth anything, it just didn't seem to matter to anybody or me either, nothing to do and sad all the time, might as well — but I.C.M. helped me, Preg, really they did, a hundred thousand on endocrine treatments and I'm all right now, I'm fine and you don't want to go crazy, it's no fun and bad, do what they say, save yourself before —"

"Look at him, folks!" the Master of Ceremonies chortled. "I'll be surprised if he doesn't go for a Ph.D.!" And indeed the young singer was shaking, one shoulder twitching constantly as if to let fall some terrible burden. His guitar had dropped from his limp hand and rested at his feet.

Bennet, shaking with another emotion, strode to the television set and switched channels. More charts, counting boards, and calm-faced men, one of whom murmured; "The slowest election in thirty years, only two per cent of the returns in, but our computer says it looks like —"

Randall had grunted when Bennet had switched stations, but now he refocused his attention on the screen. The English major and Zirkle exchanged a slow look, but said nothing. Zirkle slumped wearily in his chair.

*Another part of the same picture*, Michael told himself. When things get big they get complicated, so you've got to have an elite of experts (like himself), with high, moral and good motivation. Also, the program crudely tried to counter the violent anti-intellectualism of the alienated, or at least blunt it. But as the pressure gets higher, the sell gets cruder, of course.

He glanced across at Bennet, who was still smiling oddly. "What's so funny?" asked Zirkle lightly.

"Nothing much. That program, in a way. They talk about the "Kafka Ballot." Well, *Get That Degree* is a Kafka joke. They ought to call it *Laugh Along with Franz*."

Zirkle stared across at the oth-

er young man, but Bennet returned his gaze evenly and kept on smiling. He'd heard a lot of odd notions, but Kafka as a comedian? The writer of *The Castle* and *The Trial* and "Metamorphosis"? Oh, well, the City was an Emotionally Disturbed Area, and college students, English majors especially . . .

"Listen, I want to get some air," said Bennet, getting up. Zirkle nodded and followed him downstairs.

Outside the street was wide and empty, cold and clean and bright under the lamps this November night. The moon lay full halfway up the sky, dull orange. There was no wind, but Zirkle buttoned his jacket and both young men walked quickly, Bennet working harder to keep up with the husky, nerve-taunted math major. Zirkle kept his hand in his knife pocket, for New York City had become quite dangerous after dark. Some of his physics friends had built themselves laser guns in the labs.

"What did you mean about that program being a big Kafka joke?" Michael asked Bennet truculently.

Bennet was silent for a moment. "You haven't taken much lit, have you? It'd take a while to explain —"

"No," said Zirkle, a little tight-



GILBERT L.

ly. "My major takes 42 points all by itself, and I've got a job and my girl — you met Barbara, didn't you?" He hesitated, ready to plunge off down a street toward home. But five minutes more? What had Bennet meant? "But anyhow I did read the two important books. Bleak, oppressive — how can you call Kafka funny?"

"I see," said Bennet. "You didn't read *Amerika*, did you? Ummm, and in a survey course they try to simplify everything. And after all, Kafka really did have a lot to say about the condition of alienation."

"So?"

"Okay, so now I want you to forget science for a few minutes. Just get away from that point of view and take a look around you!"

"Come on!"

Bennett looked at him sincerely. "To a philosopher, science as a way of looking at things, the I.C.M. approach, is really pretty limited. Consider some of the basic questions. Nobody knows why he's here on earth. Nobody knows why people are here, or if they're behaving in the 'right' way. Nobody knows, except in a very vague way, what'll happen in the future — say a minute from now. You don't know what God is, or what

he wants, or why the universe is here."

"That's philosophy —"

"Sure it is. And I think I've seen you with your girl enough to know you care at least a little about such questions —"

"Well . . ." Zirkle's tone was wary and weary in the street. He tried to see what was coming in Bennet's eyes, but that game was useless, as he'd learned a dozen years before.

"Well, what? What about those questions — and everyone knows about them, and thinks about them, don't kid yourself, smart guy.

"Well," Bennet continued sarcastically, then went on in a normal tone of voice, "Well, most people today say — so what. I get along all right, eat, drink, make love — that's enough for me. I'll leave stuff like that alone.

"Scientists, engineers, the guys at I.C.M., have a few small answers to the *important* questions, so naturally they think they have 'em all. And one way or another, they've fitted the modern world around those answers.

"In the last few years, lots of people haven't been satisfied with the first answer. They've tried to take up the second, but for most of 'em, the 'scientific world' is unbearable — students going nuts trying to become

physicists, those that automation unemploys feeling worthless, the 'unintellectually gifted' getting frustrated. People who have chosen lives without pleasure or satisfaction — alienated people."

"Okay, take it easy on the lecture," Zirkle told the other young man, although he was becoming excited. Bennet didn't explain everything, but what he said made sense, more sense than —

"Now what Kafka did as a writer was to play games with those terrible fundamental questions I was talking about — what is life? Who is God?, and so on. The terrible guilt we all sometimes feel and can't explain is like the accused's crime in *The Trial*. The Land Surveyor in *The Castle* who can never reach his superiors or find out what they want — well, if you've ever worked in a large organization —"

"Still, I don't think he's so funny —"

"That's because you're thinking as the Land Surveyor, not as the author. Kafka jokes by fantastic exaggeration, like *The Trial* that goes on for a man's whole life."

"Still I don't see —"

"Did you ever read his 'Investigations of a Dog?' It's all about this dog philosopher, try-

ing to solve the Greatest Problem of Canine Philosophy: Will the food still come down if dogs don't keep watering the earth? Only whenever he thinks he's beginning to get anywhere on the solution, this other dog from across the street comes to visit him and gets him so excited he can't think afterwards about the great problem for hours.

"You see, the dog hasn't a chance of solving the problem, it's an impossible problem, because the dog hasn't the smallest notion of what his real relationship to his superiors (man and the Universe) really is. Kafka's laughing at us, smiling at our notions of what are the big problems, what God is and what he wants, what are and aren't distractions. It's the cast of 'Laugh Along with Franz'. Like that silly show we just watched — as if a million more Steiner Steinsteins could help each of us with the problems of our lives."

"Okay," said Michael. "Sure, sure, now I see, everyone so grimly certain they have the answer —" He slackened the pace a little. The streets were deserted, the moon and stars making them dimly luminous. Across the dark nation, in a hundred thousand voting booths, Franz was roaring. "And the Kafka ballot — you think that's another joke? If no one has faith

in the government and everyone's depressed —"

"I really don't know," the English major confessed. "In a way, to me, it is. But I don't know, I don't want to apply my philosophy that far. That problem is too big and strange and real."

Michael looked across at him, but the other boy stayed silent.

Presently they came around a corner and were back at the apartment. Neither one cared to speak anymore. They climbed the stairs wearily. Zirkle stopped just inside the door and said good-by to the others.

"Hey, Michael, remember Lerner's program, the one you were debugging this morning?" asked Randall, his lean face peaking out from behind a massive old armchair. "Well, if I'm right, they got the results back from the multiversity and put them on about twenty minutes ago." He gestured at the screen. "With five per cent of the vote in, the computers said the alienated vote would be a plurality."

"Well, I guess it's still too early to really tell," said Zirkle dully, knowing he lied. "I guess I'll be seeing you in class tomorrow, Toby."

"Right-o."

"Nice talking to you, Ben-net," Zirkle said.

"Anytime, Zirkle. Be seeing you."

"Sure. G'by."

Michael was out in the street before he realized he should have called ahead. He shrugged and went on eagerly through streets somehow wearier than himself. He'd thought too much, he could feel himself needing Barbara, all the rest seemed foolishness.

And what had came of it, anyhow? Beside the monoliths uptown, and again watching *Get That Degree*, he'd felt a powerful impulse to switch his major, get away from the machines perhaps even quit school. But he'd have to think of some real alternates before he'd do anything.

And all this new swim of ideas. Maybe in stories people made sudden definite decisions, took violent action. Not him. Oddly, in the dynamic modern world, with the greatest freedom of action in history, everyone in everyway, became cautious, demurring, passive.

But what would happen when Franz was elected.

*Stupid!* he told himself . . . Franz Kafka was running. The president would be the real candidate with the greatest number of votes. The alienated voters wouldn't be getting anything, wouldn't be saying anything.

Or would they? Yes, he could see it, Bennet had been too cautious. The alienated voters were casting the strongest ballot of all. They were *laughing along with Franz*.

The scientists, the government, including both parties, the big corporations and big universities. There was little choice among them, for a vote or for a life. Together, they'd created automation and the Economically Depressed Areas, *Get That Degree!* and the Emotionally Disturbed Areas. Democrat or Republican, I.C.M. or California Multiversity, the differences were only superficial.

Those who'd voted for Kafka had taken a real stand, showed their dissatisfaction with the whole mess. The politicians wouldn't make long speeches about apathy to the electorate; instead, they'd have to defend themselves to the millions who were angry and frustrated and said it.

More than that, they'd asserted that they had personal problems of their own, concerns that were important to them alone and to which the great social structures were irrelevant.

The Kafka Ballot was no solution. But perhaps it was the first step in a new approach. Automation and the Cold War, space



flight and over-population — modern problems were too big, they could do little now but terrify and frustrate. The alienated vote could give people a chance to say how they felt; to relax, to "laugh with Franz."

Zirkle thought of Judo. Sometimes you won by relaxing.

That was what the Kafka Ballot was. A request for freedom, to let each person find his own answers in his own way.

Not that he had any, at least not yet.

But at least he had a clearer eye. So he knew how important it was that Barbara should be waiting for him, and she was.

For nearly a minute after he came in he simply watched her in silent pleasure, smiling happily.

In those seconds she tried to tell him about the letter that had come for him at ten, how the machines had made a mistake about him, not recorded his registration, so that he had effectively vanished from the school: they'd cancelled his I.D., bursar receipt, and class admission tickets, taken back his scholarship awards, and sent him a Draft notice. And she'd been excited and been running round for him all day, trying to get someone in authority to admit that he existed.

She was tired and a reaction

of annoyance at him had set in, but he didn't let it come out that way. He embraced her powerfully (a lot of that was needed), and teased her anger into ardour, so her fury was exhausted in amorous combat.

Afterwards, staring up at the ceiling with Barbara slumbering warmly beside him, Michael thought of what the machines had done. Perhaps the devices had not really made a mistake at all, but perhaps in some dark aspect were aware . . .

His fatigue explained such foolishness.

"Kizme," mumbled Barbara in the darkness, and he did.

Hovering on the threshold of sleep, his arm around her, Michael wondered, as he would always wonder, what it really was all about, what he really was here for, and finally, what would happen tomorrow and after that.

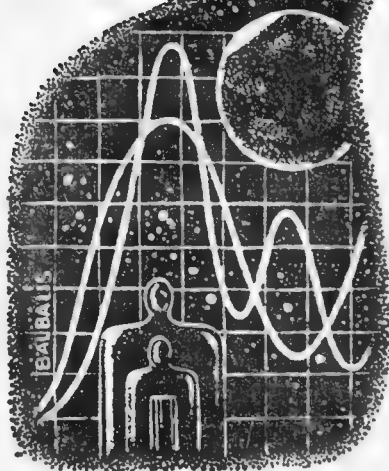
He awoke before his girl the next day, to silence and grayness.

His eyes touched his library of manuals and texts and tapes, and he hovered on depression. But then he looked at Barbara, and realized with a happy start how nice it was to wake up next to her.

A little while later, he was not too unsettled to learn that Franz Kafka had been elected President.

—NORMAN KAGAN

**for  
your  
information**



**BY WILLY LEY**

## **THE HEALTHFULL AROMATICK HERBE**

**M**y mail consists not only of letters, bills, announcements and ads, it also offers a fair share of news releases of all kinds. One of these was a summary of statistics on the connection of smoking with lung cancer, nice statistics that did not mention exhaust fumes from motor vehicles even once. Some tentative opinions,

both medical and legal, were appended, requiring careful reading; so careful in fact that I let my cigar go out while wading through them. After re-lighting it I sat back and remembered.

The first World War lasted from 1914-1918—which in terms of my own life spanned the ages from eight to twelve. Of course I did not yet smoke myself then, but I remember the complaints of the adults, mainly those of my own grandfather and his friends and neighbors. These complaints did not deal with the fact that their sons and nephews and younger brothers were in the frontlines; that was a fate one had to accept. The complaints were about the butter ration (one ounce per adult per week) and the impossibly bad quality of the cigars and cigarettes—if they were available at all. One neighbor of the do-it-yourself type announced that mixing one third of tobacco with one third of dried willow leaves and one third of walnut leaves produced a smokable mixture. Of course I now know how lucky they all were since animal fats like butter contribute to heart attacks and as for smoking—but you know that story.

One of my habits is that I am fond of old books and I now suspect that handling paper sev-

eral hundred years old has some horrible medical consequences yet unknown—their discoverer may just be waiting for computer time—but in the meantime I learn things and write historical essays from time to time. And one such essay, that has been in the back of my mind for quite some time, happens to be about tobacco.

There are four useful plants of American origin that have conquered the world. They are the potato, maize (or Indian corn), the tomato (once suspected of being poisonous, but what would the Italians be doing without it?) and finally the “healthful aromatic herbe” tobacco. There are some countries, mainly around the Mediterranean, where the potato plays a minor role. There are others, like northern Europe, where maize is considered fine poultry feed. Some countries, mainly in Asia, still do without tomatoes. But there is no country on this planet which has refused tobacco. No other plant, or product, has ever conquered the world so quickly.

Of course there are several species of the tobacco plant. The one that produces nearly all the smoking tobacco for the western world, bearing the botanical name *Nicotiana tabacum*, originally grew in South America, Mexico and the West Indies. The North

American species is *Nicotiana rustica* which is not cultivated in North America any more, but in the Soviet Union and Asia minor. It produces the kind of tobacco the Russians call *makhorka*. The best looking flowers are those of *Nicotiana sylvestris*, so this species is cultivated for ornamental purposes.

Contrary to what you may have read somewhere there is no native species of *Nicotiana* in Africa or anywhere else in the world with a single exception: *Nicotiana suaveolens* and its relatives of North Australia.

When the Europeans came to the western hemisphere they found the natives smoking. Few of them, if any, were sufficiently learned to know that inhaling the smoke of certain herbs was an old invention and that it just so happened that it was not done in Europe at the time. To them smoking was something marvelous that they had never seen or even heard about. Of course they tried it.

The Spaniards that had gone to Cuba and Mexico tried the native cigars, consisting of tobacco leaves wrapped in a dry palm leaf. The English that had gone to Roanoke Island tried the pipe and one of them, the mathematician Thomas Hariot (he returned with Sir Francis Drake) later wrote that "the fumes . . .

not only preserve the body, but if there are obstructions it breaks them up. By this means the natives keep in excellent health, without any of the grievous diseases which often inflict us in England."

Incidentally, it is said that it was Thomas Hariot who taught Sir Walter Raleigh to smoke, at any event Hariot smoked at an earlier date than Raleigh. One wonders what happened to them the first time they tried. We have a classical description of the results of a first encounter with tobacco smoke from the pen of the famous Swiss physician Conrad Gesner of Zurich. Gesner, official city physician, was then working on a book on plants, with special attention to their medicinal value. He wrote innumerable letters to other learned men, asking for specimens and pictures of plants that did not grow in and near Zurich. One of his correspondents, Occo by name, sent him a tobacco leaf and while Gesner did not live to finish his book on plants, the report on his experiments that he sent to Occo has been preserved. The letter was written in 1563, the original language is Latin. In translation, the pertinent portion reads:

The leaf which Funke receiv-

ed from you has been sent to me, I assume you got it from France. Since you did not give its name and did not describe its effects (the original used the word "virtues") I decided to test it myself by chewing but without swallowing the juice. Even a small portion of the large leaf had such an effect that I was like drunk and staggered as if I tried to walk on deck of a ship that travelled rapidly down river. A second and third try had the same result. I then recalled having read that an American herb is reported to have a similar effect but that the natives use it every day for fumigation. I crumbled a portion of the leaf and dropped it onto glowing charcoal and pulled the smoke into my mouth by using a funnel. I felt nothing unpleasant except a sharp taste. The following day I inhaled a large quantity of the smoke and felt some vertigo, though less than after chewing the leaf. The plant has a wonderful power of producing a kind of peaceful drunkenness . . . I feel certain that it is the same plant which the French have named *Nicotiana* after their ambassador Nicot. If you have a few more leaves please send me some more so that I can complete my investigation.

As far as is known Gesner did not receive additional leaves, but he mentioned the effects of tobacco smoke several times later,

he seems to have been very much intrigued by it, both as a person and as a physician.

Before going on with the history of tobacco in Europe I have to add a few words about smoking before the discovery of America. The first and oldest witness is the Father of History, Herodotus, who reported that the Scythians carried red-hot stones into a tent, sprinkled hemp seed over the glowing stones and enjoyed inhaling the smoke. Roman legionnaires became acquainted with the smoking of hemp leaves (hashish, marihuana) repeatedly in history. Still another kind of smoking is mentioned in a poem of Spanish origin, dated 1276, which states: "they say that lavender has the virtue of dispelling sleep and of giving strength to those who inhale its smoke."<sup>1</sup>

No one man, of any specific nationality, introduced tobacco in Europe. Spaniards, Portuguese, Frenchmen and Englishmen were all engaged in the New World. All of them encountered tobacco, most of them started to smoke and any number of un-

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1) One of the German Herbals of the sixteenth century mentions a use of lavender that sounds more reasonable to us: "Take a vase of clay and put into it layers of the blossoms of *Lavandula* and the leaves of *Centifolia*. Put Allspice among the leaves and a little salt. In winter place the vase on top of a hot stove and a pleasant smell will pervade the room."

known sailors must have taken seeds home. The historical problem is also complicated by two facts of Nature. One is that tobacco seeds are small, an empty inkhorn used as a container would hold enough seeds to seed acres of it. The second is that the plant itself is pretty, nobody would plant tomato plants for decoration, but tobacco plants were and still are so used. When Edmund Howes wrote in his "Generall Chronicle of England", published in 1631, that: "Tobacco was first brought and made known in England by Sir Iohn Hawkins, about the yeare 1565, but not used by Englishmen in many yeeres after . . ." he just summarized local tradition and that tradition was probably correct.

The testimony of a Spanish physician, Dr. Monardes of Sevilla, printed in 1571 emphasizes this point too. "This herb commonly called Tabaco is a very ancient herb known among the Indians, chiefly those of New Spain. After taking possession of these countries our Spaniards, being instructed by the Indians, availed themselves of this herb . . . A few years ago it was brought over to Spain, to adorn gardens so that with its beauty it would afford a pleasing sight, rather than that its marvelous virtues were taken into consider-



One of the earliest published pictures of the tobacco plant; from Monardes' *Newes of the New-found Worlds*, printed in London in 1596.

ation. Now we use it to a greater extent for the sake of its virtues than for its beauty . . ." Since the plant came "quietly" and often, nobody troubled noting down dates, Dr. Monardes "a few years ago" can mean six years or twelve or even twenty. It happens to be known that tobacco was grown in Portugal in 1558 and from Portugal it came to France.

But the introduction into France came with a flourish and two people fought for the honor of having introduced it. It is

mainly because of the fact that one man cried out in print "I did it first" that we know the details. He was Andre Thevet, born at Angouleme in 1502. He joined the Franciscan order and accompanied a French expedition to South America as ship's chaplain in 1555. He spent a total of three months at what is now Rio de Janeiro, joined in a short expedition to La Plata and then returned to France where he wrote a book, published in 1557. Its title was *Les Singularitez de la France antarctique, autrement nommee Amerique*, using the word "antarctic" quite loosely to mean "south of the equator". It may be this book that Gesner had read. Thevet not only described the cigars of the South American Indians, he also said that he had tried it himself and mentioned (from hearsay) that tobacco was smoked in pipes in Canada. But he did not say (in his book) that he brought samples of the leaves, or seeds, back with him.

The other side of the story deals with Monsieur Jean Nicot, born in 1530 as the son of a notary public and sent to Paris for his education. Jean Nicot did well in public life; in 1559 he was sent to Portugal as the French ambassador. One version has it that he saw the plant growing in

the prison garden, another that it was cultivated in the Royal Garden of Lisbon—it probably grew in both places.

Nicot heard about its medicinal value, started experimenting, and after effecting some cures in Lisbon he dispatched leaves, seeds and instructions for use to the king of France, Francois I, and the queen-mother Catherine de Medici. The instructions were to use it as snuff. Francois I suffered from recurrent headaches and was "marvellously cured" by the use of snuff (sinus trouble?). Catherine did not mind that tobacco was referred to as *herbe de la Reine*, the queen's herb, and tobacco culture in France started in 1560. In 1561 Nicot returned to France and by 1570 botanists referred to tobacco as *Nicotiane*.

Frater Andre Thevet exploded with indignation and wrote another book, published in 1575, claiming that he had brought tobacco seeds with him on his return from Brazil in 1556, that he had raised the plants and named them *herbe Angoulmoisine*, a name derived from the name of his birthplace. And he complained bitterly that "somebody who has not even made a voyage" attached his name to the plant.

Well, it is perfectly clear what Nicot did, it is also certain that Thevet was the first Frenchman

to write about tobacco. But most French historians do not believe his later claim that he raised it in France. They are probably justified, for the existence of the plant on French soil would have become known quickly, at least among physicians.

As regards England Sir John Hawkins probably was the first to bring in seeds, at least the date fits in with the existence of places where *Nicotiana rustica* was grown soon after. The superior Central and South American *Nicotiana tabacum* came somewhat later. Its first description, in England, that is, can be found in a work never printed. Its author was William Harrison who died in 1593, the manuscript is preserved in the Diocesan Library at Derry, Ireland. I am quoting the following passages after Dr. Berthold Laufer who was curator of anthropology at the Field Museum in Chicago, now the Chicago Museum of Natural History. It is not known to me whether Dr. Laufer made these excerpts himself or whether excerpts from William Harrison's "English Chronology" have been published somewhere. At any event this is what Harrison wrote down under the heading 1573:

In these daies the taking-in of the smoke of the Indian

herbe called "Tabaco", by an instrument formed like a little ladell, whereby it passeth from the mouth into the hed and stomach, is gretlie taken-up and used in England, against Rewmes and some other diseases ingendred in the longes and inward partes, and not without effect . . . The herbe is comonly of the height of a man, garnished with great long leaves like the paciens, bering seede . . . the herbe it self yerely coming up also of the shaking of the seede. The colour of the floure is carnation, resembling that of lemmon in forme: the roote yellow, with many filletes, and therto very small in comparison, if you respect the substauns of the herbe.

This is an eye-witness description of *Nicotiana tabacum* which could not have come from the Roanoke colony. Of course by then it was grown in Portugal, Spain and France so that the seeds that were planted in England might not have cross the Atlantic.

The early history of tobacco in England is even more dramatic than in France. In France it was merely a question of one man claiming a priority he could not prove. In England the king himself, James I, reached for the goosequill to write *A Counterblaste to Tobacco*, published in 1604.<sup>2</sup>





*"The Apish Art of Tasting", an illustration from an early anti-tobacco pamphlet. Just to make clear what the author felt, the artist included the figure of an ape.*

Now to the corrupted baseness of the first use of this Tobacco, doeth very well agree the foolish and groundlesse first entry thereof into this Kingdom. It is not so long since the first entry of this abuse amongst us here . . . It was neither brought in by King, great Conquerour, nor learned Doctor of Physicke. With the report of a great discovery for a Conquest, some two or three Savage men, were brought in, together with

this Savage custome. But the pitie is, the poore wilde barbarous men died, but that vile barbarous custome is yet alive, yea in fresh vigor . . .

James I, being king, could do more than publish an energetic condemnation. He could raise the import tax and did. Under Queen Elizabeth the import tax had been two pence per pound, James raised to 6 shillings and 10 pence, a mere 4000 per cent increase. This nearly ruined the Virginia colony that depended on tobacco. Bermuda which tried to live on tobacco growing, also fared poorly. King James finally solved his problem in a not unusual manner, by creating a monopoly. No tobacco imports were allowed, except from Virginia, and nobody was permitted to sell tobacco, except those persons who held a special royal warrant created for this purpose. The warrant could be obtained for a fee of 15 pounds and it had to be renewed every year by payment of a like amount.

After the raising of the import tax, which happened in 1604, and before the creation of the monopoly precisely twenty years later, tobacco was quite expensive in London. It was sold by placing a silver coin on one scale and putting loose tobacco on the

2) The complete text can be found in most large libraries under the title *English Reprints*, compiled by Edward Arber, London 1869.

other until the scales balanced. (Things haven't changed too much. I just found out that my cigars, which cost a quarter a piece, need two quarter coins to balance on the postage scale.) In spite of the high price business was flourishing, as can be found out from a book with the unlikely title *The Honestie of this Age, Prooving by good circumstance that the world was never honest till now*, written by a "Servant to the Kings most excellent Maiestie" by the name of Barnabee Rych. He said that in and near London there are 7000 shops, by very conservative estimate, that "doth vent Tobacco" and that it would be "an ill customed shoppe that taketh not five shillings a day". But he is willing to be lenient and assume that every tobacco shop sells only 2 shillings 6 pence worth per day. "Let us reckon thus, 7000 halfe Crowns a day, amounteth just to 319,375 poundes a yeare. *Summa totalis*, All spent in smoake."

During the seventeenth century quite a number of gentlemen stated publicly that the tobacco grown in England was inferior to that grown in the colonies. That statement would have made sense if the English tobacco had all been *Nicotiana rustica* and that of the American colonies *Nicotiana tabacum*. But both

types were grown in England, and Virginia grew *Nicotiana rustica* only, as far as one can find out. Hence one may suspect that the gentlemen who made these statements either tried to please the king, or else that they had holdings in the colonies.

Charles II who ruled from 1660 to 1685 simply forbade planting of tobacco in England, so as to favor the colonies. His Justices of peace could order the destruction of tobacco plants and fine forty shillings for every rod of ground where the plants grew. (Herb gardens for medicinal purposes were exempt.) The Justices were also instructed to watch for people cutting walnut leaves (!) for adulterating tobacco. The fine for cutting any kind of leaves for this purpose was 5 shillings per pound of leaves.

It is interesting that Charles II still exempted herb gardens because he must have grown up with the barrage of pamphlets that either praised the medicinal value of tobacco to the sky or "proved" that it had never done anybody any good. James I, in his *Counterblaste* had written that the so-called virtues were just based on fashion and imitation. "For such is the corruption of envie bred in the brest of every one, as we cannot be content unlesse we imitate every thing that our fellowes doe, and so

proove our selves capable of every thing whereof they are capable . . ." He went on to say: "If a man smoke himself to death with it, O then some other disease must beare the blame for that fault." An anonymous Englishman in 1602 had even gone so far in condemnation of tobacco that he put the lines

Better be chokt with English hemp, than poisoned with Indian Tobacco

on the title page of his pamphlet.

Charles II presumably had concluded that tobacco might have medicinal value since many doctors said so. He wisely paid attention to the financial aspects only.

The introduction of tobacco on the European continent was unaccompanied by such turbulence, presumably because France was the pace setter and if the king of France was in favor of the new herb no lesser person should have an opinion. Apparently much tobacco was imported into the Netherlands and Lower Germany from the Iberian peninsula in the form of "ropes" of dry leaves which were packed in baskets. Now the Spanish word for basket is *canastro* and for some time the tobacco itself was called *canaster*; the Germans then shortened this to *Knaster*. But while the generals of Fred-

erick the Great just meant pipe tobacco when they bought *Knaster* in a store, the word now means an inferior tobacco, a home-cured weed good only for pipes and to be smoked outdoors.

In Italy everything went peacefully too. The plant itself was introduced, as a botanical novelty, twice, in 1561 by Prospero Cardinal Santa Croce who had seen it in Portugal while on a diplomatic mission, and once by Nicolo Tornabuoni in about 1570 who saw it in Paris, also while on a diplomatic mission. Smoking was brought to Italy by the Cardinal Crescenzo in about 1610, he had learned it in England. The Catholic Church took a stand in the tobacco question only once: Pope Urban VIII threatened excommunication to anyone who would smoke inside a church.

In Russia, as usual, things went from one extreme to the other. In 1634 the Grandduke of Muscovy forbade the use and sale of tobacco, on the grounds that many subjects spent all their money on tobacco and vodka and, when drunk, set their houses afire because of carelessness in smoking. The penalty was slitting of the nostrils, in minor cases only a severe whipping. However, the edict did not apply to foreigners residing in Moscow, the results of a law that applied

to some people, but not to all of them, is easy to imagine. But the day was saved for Russian smokers when Peter the Great ascended the throne in 1689. Pyotr Alekseyevitch, to call him by his native name, had become a smoker in England. And he had also learned of the monopoly decreed by James I. He was interested in both aspects of the case and, being a practical man, made an agreement with the Marquis of Carmarthen who acted for an English company. The English company got the right to import 1½ million pounds of tobacco into Russia every year. The Czar received 28,000 pound sterling, and the Russians were free to smoke, all earlier edicts

and laws having been revoked by the Czar.

Well, that is an outline of the conquest of the earth as performed by an American plant.

And I don't even have to think of a good ending for this column, because Lord Byron was kind enough to supply me with one:

Divine in hookas, glorious in  
a pipe,

When tipp'd with amber,  
mellow, rich, and ripe;

Like other charmers, wooing  
the caress,

More dazzlingly when daring  
in full dress;

Yet thy true lovers more  
admire by far

Thy naked beauties—Give  
me a cigar! —WILLY LEY

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# THE WARRIORS

by ROBERT SILVERBERG

# OF LIGHT

Illustrated by GAUGHAN

*The Brotherhood provided men  
with a morality and a dream  
—and a threat of doom, too*

## I

If Acolyte Third Level Christopher Mondschein had a weakness, it was that he wanted very badly to live forever. The yearning for everlasting life was a common enough human desire, and not really reprehensible. But

Acolyte Mondschein carried it a little too far.

"After all," one of his superiors found it necessary to remind him, "your function in the Brotherhood is to look after the well-being of others. Not to feather your own nest, Acolyte Mondschein. Do I make that clear?"

"Perfectly clear, Brother," said Mondschein tautly. He felt ready to explode with shame, guilt and anger. "I see my error. I ask forgiveness."

"It isn't a matter of forgiveness, Acolyte Mondschein," the older man replied. "It's a matter of understanding. I don't give a damn for forgiveness. What are your goals, Mondschein? What are you after?"

The Acolyte hesitated a moment before answering — both because it was always good policy to weigh one's words before saying anything to a higher member of the Brotherhood, and because he knew he was on very thin ice. He tugged nervously at the pleats of his robe and let his eyes wander through the Gothic magnificence of the chapel.

They stood on the balcony, looking down at the nave. No service was in progress, but a few worshippers occupied the pews anyway, kneeling before the blue radiance of the small cobalt reactor on the front dais. It was the Nyack chapel of the Brotherhood of the Immanent Radiance, third largest in the New York area, and Mondschein had joined it six months before, the day he turned twenty-two. He had hoped, at the time, that it was genuine religious feeling that had impelled him to pledge his fortunes to the Vorsters.

Now he was not so sure.

He grasped the balcony rail and said in a low voice, "I want to help people, Brother. People in general and people in particular. I want to help them find the way. And I want mankind to realize its larger goals. As Vorst says —"

"Spare me the scriptures, Mondschein."

"I'm only trying to show you —"

"I know. Look, don't you understand that you've got to move upward in orderly stages? You can't go leapfrogging over your superiors, Mondschein, no matter how impatient you are to get to the top. Come into my office a moment."

"Yes, Brother Langholt. Whatever you say."

Mondschein followed the older man along the balcony and into the administrative wing of the chapel. The building was fairly new, and strikingly handsome — a far cry from the shabby slum-area storefronts of the first Vorster chapels, a quarter of a century before. Langholt touched a bony hand to the stud, and the door of his office irised quickly. They stepped through.

It was a small, austere room, dark and somber, its ceiling groined in good Gothic manner. Bookshelves lined the side walls.

The desk was a polished ebony slab on which there glowed a miniature blue light, the Brotherhood's symbol. Mondschein saw something else on the desk: the letter he had written to District Supervisor Kirby, requesting a transfer to the Brotherhood's genetic center at Santa Fe.

Mondschein reddened. He reddened easily; his cheeks were plump and given to blushing. He was a man of slightly more than medium height, a little on the fleshy side, with dark coarse hair and close-set, earnest features. Mondschein felt absurdly immature by comparison with the gaunt, ascetic-looking man more than twice his age who was giving him this dressing-down.

Langholt said, "As you see, we've got your letter to Supervisor Kirby."

"Sir, that letter was confidential. I—"

"There are no confidential letters in this order, Mondschein! It happens that Supervisor Kirby turned this letter over to me himself. As you can see, he's added a memorandum."

Mondschein took the letter. A brief note had been scrawled across its upper left corner: *"He's awfully in a hurry, isn't he? Take him down a couple of pegs. R. K."*

The acolyte put the letter down and waited for the wither-

ing blast of scorn. Instead, he found the older man smiling gently.

"Why did you want to go to Santa Fe, Mondschein?"

"To take part in the research there. And the—the breeding program."

"You're not an esper."

"Perhaps I've got latent genes, though. Or at least maybe some manipulation could be managed so my genes would be important to the pool. Sir, you've got to understand that I wasn't being purely selfish about this. I want to contribute to the larger effort."

"You can contribute, Mondschein, by doing your maintenance work, by prayer, by seeking converts. If it's in the cards for you to be called to Santa Fe, you'll be called in due time. Don't you think there are others much older than you who'd like to go there? Myself? Brother Ashton? Supervisor Kirby himself? You walk in off the street, so to speak, and after a few months you want a ticket to utopia. Sorry. You can't have one that easily, Acolyte Mondschein."

"What shall I do now?"

**P**urify yourself. Rid yourself of pride and ambition. Get down and pray. Do your daily work. Don't look for rapid

preferment. It's the best way *not* to get what you want."

"Perhaps if I applied for missionary service," Mondschein suggested. "To join the group going to Venus—"

Langholt sighed. "There you go again! Curb your ambition, Mondschein!"

"I meant it as a penance."

"Of course. You imagine that those missionaries are likely to become martyrs. You also imagine that if by some fluke you go to Venus and don't get skinned alive, you'll come back here as a man of great influence in the Brotherhood, who'll be sent to Santa Fe like a warrior going to Valhalla. Mondschein. Mondschein, you're so transparent! You're verging on heresy. Mondschein, when you refuse to accept your lot."

"Sir, I've never had any traffic with the heretics. I—"

"I'm not accusing you of anything," Langholt said heavily. "I'm simply warning you that you're heading in an unhealthy direction. I fear for you. Look—" He thrust the incriminating letter to Kirby into a disposal unit, where it flamed and was gone instantly. "I'll forget that this whole episode ever happened. But don't you forget it. Walk more humbly, Mondschein. Walk more humbly, I say. Now go and pray. Dismissed."

"Thank you, Brother," Mondschein muttered.

His knees felt a little shaky as he made his way from the room and took the spiral slideshaft downward into the chapel proper. All things considered, he knew he had got off lightly. There could have been a public reprimand. There could have been a transfer to some not very desirable place, like Patagonia or the Aleutians. They might even have separated him from the Brotherhood entirely.

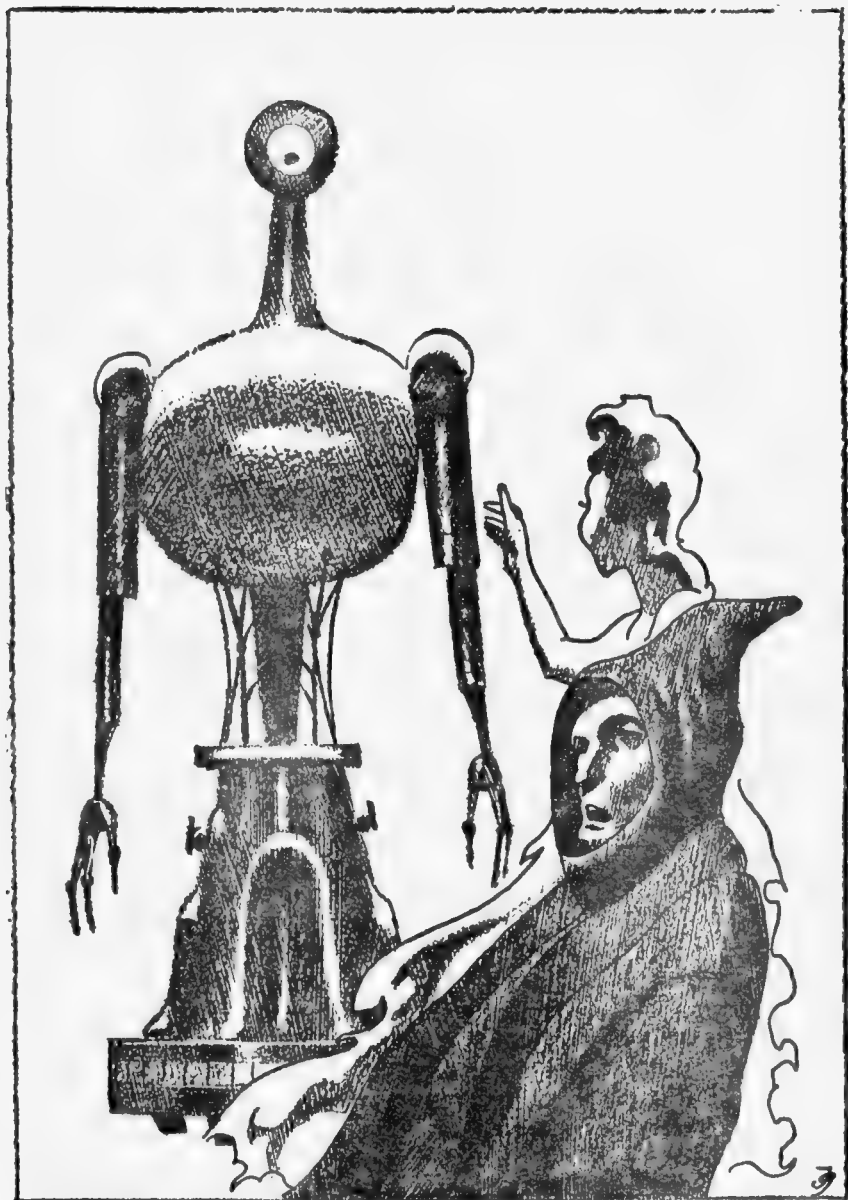
It had been a massive mistake to go over Langholt's head, Mondschein agreed. But how could a man help it? To die a little every day, while in Santa Fe they were choosing the ones who would live forever—it was intolerable to be on the outside. Mondschein's spirit sank at the awareness that now he had almost certainly cut himself off from Santa Fe for good.

He slipped into a rear pew and stared solemnly toward the cobalt-60 cube on the altar.

*Let the Blue Fire engulf me,* he begged. *Let me rise purified and cleansed.*

Sometimes, kneeling before the altar, Mondschein had felt the ghostly flicker of a spiritual experience. That was the most he ever felt, for, though he was an acolyte of the Brotherhood of the





Immanent Radiance, and was a second-generation member of the cult at that, Mondschein was not a religious man. Let others have ecstasies before the altar, he thought. Mondschein knew the cult for what it was: a front operation masking an elaborate program of genetic research. Or so it seemed to him, though there were times when he had his doubts which was the front and which the underlying reality. So many others appeared to derive spiritual benefits from the Brotherhood — while he had no proof that the laboratories at Santa Fe were accomplishing anything at all.

He closed his eyes. His head sank forward on his breast. He visualized electrons spinning in their orbits. He silently repeated the Electromagnetic Litany, calling off the stations of the spectrum.

He thought of Christopher Mondschein living through the ages. A stab of yearning sliced through him while he was still telling off the middling frequencies. Long before he got to the softer X-rays, he was in a sweat of frustration, sick with the fear of dying. Sixty, seventy more years and his number was up, while at Santa Fe —

*Help me. Help me. Help me.*

*Somebody help me. I don't want to die!*

Mondschein looked to the altar. The Blue Fire flickered as though to mock him by going out altogether. Oppressed by the Gothic gloom, Mondschein sprang to his feet and rushed out into the open air.

## II

He was a conspicuous figure, in his indigo robe and monkish hood. People stared at him as though he had some supernatural power. They did not look closely enough to see that he was only an acolyte, and, though many of them were Vorsters themselves, they never managed to understand that the Brotherhood had no truck with the supernatural. Mondschein did not have a high regard for the intelligence of laymen.

He stepped aboard the sidewalk. The city loomed around him, towers of travertine that took on a greasy cast in the dying reddish glow of a March afternoon. New York City had spread up the Hudson like a plague, and skyscrapers were marching across the Adirondacks; Nyack, here, had long since been engulfed by the metropolis. The air was cool. There was a smoky tang in it; probably a fire raging in a forest preserve, thought Mondschein darkly. He saw death on all sides.

His modest apartment was five blocks from the chapel. He lived alone. Acolytes needed a waiver to marry, and were forbidden to have transient liaisons. Celibacy did not weigh heavily on Mondschein yet, though he had hoped to shed it when he was transferred to Santa Fe. There was talk of lovely, willing young female acolytes at Santa Fe. Surely not *all* the breeding experiments were done through artificial insemination, Mondschein hoped.

No matter now. He could forget Santa Fe. His impulsive letter to Supervisor Kirby had smashed everything.

Now he was trapped forever on the lower rungs of the Vorster ladder. In due course they would take him into the Brotherhood, and he would wear a slightly different robe and grow a beard, perhaps, and preside over services, and minister to the needs of his congregation.

Fine. The Brotherhood was the fastest-growing religious movement on Earth, and surely it was a noble work to serve in the cause.

But a man without a religious vocation would not be happy presiding over a chapel, and Mondschein had no calling at all. He had sought to fulfill his own ends by enrolling as an acolyte, and now he saw the error of that ambition.

He was caught. Just another Vorster Brother, now. There were thousands of chapels all over the world. Membership in the Brotherhood was something like five hundred million today. Not bad, in a single generation. The older religions were suffering. The Vorsters had something to offer that the others did not: the comforts of science, the assurance that beyond the spiritual ministry there was another that served the Oneness by probing into the deepest mysteries. A dollar contributed to a local Vorster chapel might help pay for the development of a method to assure immortality, personal immortality, right in the here and now flesh and blood world.

That was the pitch, and it worked well. Oh, there were imitators, lesser cults, some of them rather successful in their small way. There was even a Vorster heresy now, the Harmonists, the peddlers of the Transcendent Harmony, an offshoot of the parent cult. Mondschein had chosen the Vorsters, and he had a lingering loyalty to them, for he had been raised as a worshipper of the Blue Fire. But—

"Sorry. Million pardons."

Someone jostled him on the sidewalk. Mondschein felt a hand slap against his back, dealing him a hard jolt that almost knocked him down. Staggering a

bit. he recovered and saw a broad-shouldered man in a simple blue business tunic moving swiftly away. Clumsy idiot, Mondschein thought. There's room for everyone on the walk. What's his hellish hurry?

Monschein adjusted his robes and his dignity. A soft voice said, "Don't go into your apartment, Mondschein. Just keep moving. There's a quickboat waiting for you at the Tarrytown station."

No one was near him. "Who said that?" he demanded tensely.

"Please relax and cooperate. You aren't going to be harmed. This is for your benefit, Mondschein."

He looked around. The nearest person was an elderly woman, fifty feet behind him on the slidewalk, who quickly threw him a simpering smile as though asking for a blessing. Who had spoken? For one wild moment Mondschein thought that he had turned into a telepath, some latent power breaking through in a delayed maturity. But no; it had been a voice, not a thought-message. Mondschein understood. The stumbling man must have planted a two-way Ear on him with that slap on the back. A tiny metallic transponding plaque, perhaps half a dozen molecules thick, some miracle of im-

probable subminiaturization — Mondschein did not bother to search for it.

He said, "Who are you?" "Never mind that. Just go to the station and you'll be met."

"I'm in my robes."

"We'll handle that, too," came the calm response.

Mondschein nibbled his lip. He was not supposed to leave the immediate vicinity of his chapel without permission from a superior, but there was no time for that now, and in any event he had no intention of bucking the bureaucracy so soon after his rebuke. He would take his chances.

The sidewalk sped him ahead.

Soon the Tarrytown station drew near. Mondschein's stomach roiled with tension. He could smell the acrid fumes of quickboat fuel. The chill wind cut through his robes, so that his shivering was not entirely from uneasiness. He stepped from the slidewalk and entered the station, a gleaming yellowish-green dome with lambent plastic walls. It was not particularly crowded. The commuters from downtown had not yet begun to arrive, and the outward bound rush would come later in the day, at the dinner hour.

Figures approached him. The voice coming from the device on

his back said, "Don't stare at them, but just follow behind them casually."

Mondschein obeyed. There were three of them, two men and a slim, angular-faced woman. They led him on a sauntering stroll past the chattering news-fax booth, past the bootblack stands, past the row of storage lockers. One of the men, short and square-headed with thick, stubby yellow hair, slapped his palm against a locker to open it. He drew out a bulky package and tucked it under one arm. As he cut diagonally across the station toward the men's washroom, the voice said to Mondschein, "Wait thirty seconds and follow him."

The acolyte pretended to study the newsfax ticker. He did not feel enthusiastic about his present predicament, but he sensed that it would be useless and possibly harmful to resist. When the thirty seconds were up, he moved toward the washroom. The scanner decided that he was suitably male, and the ADMIT sign flashed. Mondschein entered.

"Third booth," the voice murmured.

The blond man was not in sight. Mondschein entered the booth and found the package from the locker propped on the seat. On an order, he picked it up and opened the clasps. The

wrapper fell away. Mondschein found himself holding the green robe of a Harmonist Brother.

The heretics? What in the world —

"Put it on, Mondschein."

"I can't. If I'm seen in it —"

"You won't be. Put it on. We'll guard your own robe until you get back."

He felt like a puppet. Shrugging out of his robe, he put it on a hook while he donned the unfamiliar uniform. It fit well. There was something clipped to the inner surface: a thermoplastic mask. Mondschein realized. He was grateful for that. Unfolding it, he pressed it to his face and held it there until it took hold. The mask would disguise his features just enough so that he need not fear recognition.

Carefully, Mondschein put his own robe within the wrapper and sealed it.

"Leave it on the seat," he was told.

"I don't dare. If it's lost how will I ever explain?"

"It will not be lost, Mondschein. Hurry, now. The quick-boat's about to leave."

Unhappily, Mondschein stepped from the booth. He viewed himself in the mirror. His face, normally plump, now looked gross: bulging cheeks, stubbly jowls, moist and thickened lips.

Unnatural dark circles rimmed his eyes as though he had caoused for a week. The green robe was strange, too. Wearing the outfit of heresy made him feel closer to his own organization than ever before.

The slim woman came forward as he emerged into the waiting room. Her cheekbones were like knife blades, and her eyelids had been surgically replaced by shutters of fine platinum foil. It was an outmoded fashion of the previous generation; Mondschein could remember his mother coming from the cosmetic surgeon's office with her face transformed into a grotesque mask. No one did that any more. This woman had to be at least forty, Mondschein thought, though she looked much younger.

"Eternal harmony, Brother."

Mondschein fumbled for the proper Harmonist response. Improvising, he said, "May the Oneness smile upon you."

"I'm grateful for your blessing. Your ticket's in order, Brother. Will you come with me?"

She was his guide, he realized. He had shed the Ear with his own robe. Queasily, he hoped he would get to see that garment again before long. He followed the slim woman to the loading platform. They might be taking him anywhere — Chicago, Honolulu, Montreal —

The quickboat sparkled in the floodlit station, graceful, elegant, its skin a burnished bluish-green. As they filed aboard, Mondschein asked the woman, "Where are we going?"

"Rome," she said.

### III

Mondschein's eyes were wide as the monuments of antiquity flashed by. The Forum, the Colosseum, the Theater of Marcellus, the gaudy Victor Emanuel Monument, the Mussolini Column — their route took them through the heart of the ancient city. He saw, also, the blue glow of a Vorster chapel as he whizzed down the Via dei Fori Imperiali, and that struck him as harshly incongruous here in this city of an older religion. The Brotherhood had a solid foothold here, though. When Gregory XVIII appeared in the window at his Vatican palace, he could still draw a crowd of hundreds of thousands of cheering Romans, but many of those same Romans would melt from the square after viewing the Pope and head for the nearest chapel of the Brotherhood.

Evidently the Harmonists were making headway here too, Mondschein thought. But he kept his peace as the car sped northward out of the city.

"This is the Via Flaminia," his guide announced. "The old route was followed when the electronic roadbed was installed. They have a deep sense of tradition here."

"I'm sure they do," said Mondschein wearily. It was mid-evening by his time, and he had had nothing to eat but a snack aboard the quickboat. The ninety-minute journey had dumped him in Rome in the hours before dawn. A wintry mist hung over the city; spring was late. Mondschein's face itched fiercely beneath his mask. Fear chilled his fingers.

They halted in front of a drab brick building somewhere a few dozen miles north of Rome. Mondschein's face itched fiercely beneath his mask. Fear chilled his fingers.

They halted in front of a drab brick building somewhere a few dozen miles north of Rome. Mondschein shivered as he hurried within. The woman with platinum eyelids led him up the stairs and into a warm, brightly lit room occupied by three men in green Harmonist robes. That confirmed it, Mondschein thought: I'm in a den of heretics.

They did not offer their names. One was short and squat, with a sallow face and a bulbous nose. One was tall and spectrally

thin, arms and legs like a spider's limbs. The third was unremarkable, with pale skin and narrow, bland eyes. The squat one was the oldest, and seemed to be in charge.

Without preamble he said, "So they turned you down, did they?"

"How —"

"Never mind how. We've been watching you, Mondschein. We hoped you'd make it. We want a man in Santa Fe just as much as you want to be there."

"Are you Harmonists?"

"Yes. What about some wine, Mondschein?"

The acolyte shrugged. The tall heretic gestured, and the slim woman, who had not left the room, came forward with a flask of golden wine. Mondschein accepted a glass, thinking dourly that it was almost certainly drugged. The wine was chilled and faintly sweet, like a middling-dry Graves. The others took wine with him.

"What do you want with me?" Mondschein asked.

"Your help," said the squat one. "There's a war going on, and we want you to join our side."

"I don't know of any wars."

"A war between darkness and light," said the tall heretic in a mild voice. "We are the warriors of light. Don't think we're fanatics, Mondschein. Actually, we're quite reasonable men."

"Perhaps you know," said the third of the Harmonists, "that our creed is derived from yours. We respect the teachings of Vorst and we follow most of his ways. In fact, we regard ourselves as closer to the original teachings than the present hierarchy of the Brotherhood. We're a purifying body. Every religion needs its reformers."

Mondschein sipped his wine. He allowed his eyes to twinkle maliciously as he remarked, "Usually it takes a thousand years for the reformers to put in their appearance. This is only 2095. The Brotherhood's hardly thirty years old."

The squat heretic nodded. "The pace of our times is a fast one. It took the Christians three hundred years to get political control of Rome — from the time of Augustus to that of Constantine. The Vorsters didn't need that long. You know the story: there are Brotherhood men in every legislative body in the world. In some countries they've organized their own political parties. I don't need to tell you about the financial growth."

"And you purifiers urge a return to the old, simple ways of thirty years ago?" Mondschein asked. "The ramshackle buildings, the persecutions, and all the rest? Is that it?"

"Not really. We appreciate the uses of power. We simply feel that the movement's become sidetracked in irrelevancies. Power for its own sake has become more important than power for the sake of larger goals."

The tall one said, "The Vorster high command quibbles about political appointments and agitates for changes in the income tax structure. It's wasting time and energy fooling around with domestic affairs. Meanwhile the movement's drawn a total blank on Mars and Venus — not one chapel among the colonists, not even a start there, total rejection. And where are the great results of the esper breeding program? Where are the dramatic new leaps?"

"It's only the second generation," Mondschein said. "You have to be patient." He smiled at that — counselling patience to others — and added, "I think the Brotherhood is heading in the right direction."

"We don't, obviously," said the pale one. "When we failed to reform from within, we had to leave and begin our own campaign, parallel to the original one. The long-range goals are the same. Personal immortality through bodily regeneration. And full development of extra-sensory powers, leading to new methods of communication and



transportation. That's what we want—not the right to decide local tax issues.”

Mondschein said, “First you get control of the governments. Then you concentrate on the long-range goals.”

“Not necessary,” snapped the squat Harmonist. “Direct action is what we’re interested in. We’re confident of success, too. One way or another, we’ll achieve our purposes.”

The slim woman gave Mondschein more wine. He tried to shake her away, but she insisted on filling his glass, and he drank. Then he said, “I presume you didn’t waft me off to Rome just to tell me your opinion of the Brotherhood. What do you want from me?”

“Suppose we were to get you transferred to Santa Fe,” the squat one said.

Mondschein sat bolt upright. His hand tightened on the wineglass, nearly breaking it.

“How could you do that?”

“Suppose we could. Would you be willing to obtain certain information from the laboratories there and transmit it to us?”

“Spy for you?”

“You could call it that.”

“It sounds ugly,” Mondschein said.

“You’d have a reward for it.”

“It better be a good one.”

The heretic leaned forward and said quietly, “We’ll offer you a tenth-level post in our organization. You’d have to wait fifteen years to get that high in the Brotherhood. We’re a much smaller operation; you can rise in our hierarchy much faster than where you are. An ambitious man like you could be very close to the top before he was fifty.”

“But what good is it?” Mondschein asked. “To get close to the top in the second-best hierarchy?”

“Ah, but we won’t be second best! Not with the information you’ll provide for us. That will allow us to grow. Millions of people will desert the Brotherhood for us when they see what we have to offer—all that *they* have, plus our own values. We’ll expand rapidly. And you’ll have a position of high rank, because you threw your lot in with us at the beginning.”

Mondschein saw the logic of that. The Brotherhood was swollen already, wealthy, powerful, topheavy with entrenched bureaucrats. There was no room for advancement there. But if he were to transfer his allegiance to a small but dynamic group with ambitions that rivaled his own—

“It won’t work,” he said sadly.

“Why?”

“Assuming you can wangle me

into Santa Fe, I'll be screened by espers long before I get there. They'll know I'm coming as a spy and they'll screen me out. My memories of this conversation will give me away."

The squat man smiled broadly. "Why do you think you'll remember this conversation? We have our espers too, Acolyte Mondschein!"

#### IV

The room in which Christopher Mondschein found himself was eerily empty. It was a perfect square, probably built within a tolerance of hundredths of a millimeter, and there was nothing at all in it but Mondschein himself. No furniture, no windows, not so much as a cobweb.

Shifting his weight uncomfortably from foot to foot, he stared up at the high ceiling, searching without success for the source of the steady, even illumination. He did not know what city he was in. They had taken him out of Rome just as the sun was rising, and he might be in Jakarta now, or Benares, or perhaps Akron.

He had profound misgivings about all this. The Harmonists had assured him that there would be no risks, but Mondschein was not so sure. The Brotherhood had not attained its eminence without developing ways of protect-

ing itself. For all the assurances to the contrary, he might well be detected long before he got into those secret laboratories at Santa Fe, and it would not go happily for him afterward.

The Brotherhood had its way of punishing those who betrayed it. Behind the benevolence was a certain streak of necessary cruelty. Mondschein had heard the stories: the one about the regional supervisor in the Philippines who had let himself be beguiled into providing minutes of the high councils to certain anti-Vorsterite police officials.

Perhaps it was apocryphal. Mondschein had heard that the man had been taken to Santa Fe to undergo the loss of his pain-receptors. A pleasant fate, never to feel pain again? Hardly. Pain was the measure of safety. Without pain, how did one know whether something was too hot or too cold to touch? A thousand little injuries resulted: burns, cuts, abrasions. The body eroded away. A finger here, a nose there, an eyeball, a swatch of skin — why, someone could devour his own tongue and not realize it.

Mondschein shuddered. The seamless wall in front of him abruptly telescoped and a man entered the room. The wall closed behind him.

"Are you the esper?" Mondschein blurted nervously.

The man nodded. He was without unusual features. His face had a vaguely Eurasian cast, Mondschein imagined. His lips were thin, his hair glossily dark, his complexion almost olive. There was something of a fragile look to him.

"Lie down on the floor," the esper said in a soft, furry voice. "Please relax. You are afraid of me, and you should not be afraid."

Mondschein gave it a try. He settled on the yielding, rubbery floor and put his hands by his sides.

The esper sank into the lotus position in one corner of the room, not looking at Mondschein. The acolyte waited uncertainly.

He had seen a few espers before. There were a good many of them now; after years of doubt and confusion, their traits had been isolated and recognized more than a hundred years ago, and a fair amount of deliberate esper-to-esper mating had increased their number. The talents were still unpredictable, though. Most of the espers had little control over their abilities. They were unstable individuals, besides, generally high-strung, often lapsing into psychosis under stress. Mondschein did not

like the idea of being locked in a windowless room with a psychotic esper.

And what if the esper had a malicious streak? What if, instead of simply inducing selective amnesia in Mondschein, he decided to make wholesale alterations in his memory patterns? It might happen that —

"You can get up now," the esper said brusquely. "It's done."

"What's done?" Mondschein asked.

The esper laughed triumphantly. "You don't need to know, fool. It's done, that's all."

The wall opened a second time. The esper left. Mondschein stood up, feeling strangely empty, wondering somberly where he was and what was happening to him. He had been going home on the slidewalk, and a man had jostled him, and then —

A slim woman with improbable cheekbones and eyelids of glittering platinum foil said, "Come this way, please."

"Why should I?"

"Trust me. Come this way."

Mondschein sighed and let her lead him down a narrow corridor into another room, brightly painted and lit. A coffin-sized metal tank stood in one corner of the room. Mondschein recognized it, of course. It was a sensory deprivation chamber, a

Nothing Chamber, in which one floated in a warm nutrient bath, sight and hearing cut off, gravity's pull negated. The Nothing Chamber was an instrument for total relaxation. It could also have more sinister uses: a man who spent too much time in a Nothing Chamber became pliant, easily indoctrinated.

"Strip and get in," the woman said.

"And if I don't?"

"You will."

"How long a setting?"

"Two and a half hours."

"Too long," Mondschein said.

"Sorry. I don't feel that tense. Will you show me the way out of here?"

The woman beckoned. A robot rolled into the room, blunt-nosed, painted an ugly dull black. Mondschein had never wrestled with a robot and he did not intend to try it now. The woman indicated the Nothing Chamber once more.

This is some sort of dream, Mondschein told himself. A very bad dream.

He began to strip. The Nothing Chamber hummed its readiness. Mondschein stepped into it and allowed it to engulf him. He could not see. He could not hear. A tube fed him air. Mondschein slipped into total passivity, into a fetal comfort. The bundle of ambitions, conflicts,

dreams, guilts, lusts, and ideas that constituted the mind of Christopher Mondschein was temporarily dissolved.

In time, he woke. They took him from the Chamber—he was wobbly on his legs, and they had to steady him—and gave him his clothing. His robe, he noticed, was the wrong color: green, the heretic color. How had that happened? Was he being forcibly impressed into the Harmonist movement? He knew better than to ask questions. They were putting a thermoplastic mask on his face, now. I'm to travel incognito, it seems.

In a short while Mondschein was at a quickboat station. He was appalled to see Arabic lettering on the signs. Cairo, he wondered? Algiers? Ankara? Mecca?

They had reserved a private compartment for him. The woman with the altered eyelids sat with him during the swift flight. Several times, Mondschein attempted to ask questions, but she gave him no reply other than a shrug.

The quickboat landed at the Tarrytown station. Familiar territory at last. A timesign told Mondschein that this was Wednesday, March 13, 2095, 0705 hours Eastern Standard Time. It had been late Tuesday after-

noon, he remembered distinctly, when he crept home in disgrace from the chapel after getting his comeuppance over the matter of a transfer to Santa Fe. Say, 1630 hours. Somewhere he had lost all of Tuesday night and a chunk of Wednesday morning, about fifteen hours in all.

As they entered the main waiting room, the slim woman at his side whispered, "Go into the washroom. Third booth. Change your clothes."

Greatly troubled, Mondschein obeyed. There was a package resting on the seat. He opened it and found that it contained his indigo acolyte's robe. Hurriedly he peeled off the green robe and donned his own. Remembering the face-mask, he stripped that off too and flushed it away. He packed up the green robe and, not knowing what else to do with it, left it in the booth.

As he came out, a dark-haired man of middle years approached him, holding out his hand.

"Acolyte Mondschein!"

"Yes?" Mondschein said, not recognizing him, but taking the hand anyway.

"Did you sleep well?"

"I — yes," Mondschein said. "Very well." There was an exchange of glances, and suddenly Mondschein did not remember why he had gone into the washroom, nor what he had done in

there, nor that he had worn a green robe and a themoplastic mask on his flight from a country where Arabic was the main language, nor that he had been in any other country at all, nor for that matter that he had stepped bewildered from a Nothing Chamber not too many hours ago.

He now believed that he had spent a comfortable night at home, in his own modest dwelling. He was not sure what he was doing at the Tarrytown quickboat station at this hour of the morning, but that was only a minor mystery and not worth detailed exploration.

Finding himself unusually hungry, Mondschein bought a hearty breakfast at the food console on the lower level of the station. He bolted it briskly. By eight, he was at the Nyack chapel of the Brotherhood of the Immanent Radiance, ready to aid in the morning service.

Brother Langholt greeted him warmly. "Did yesterday's little talk upset you too much, Mondschein?"

"I'm settling down now."

"Good, good. You mustn't let your ambitions engulf you, Mondschein. Everything comes in due time. Will you check the gamma level on the reactor, now?"

"Certainly, Brother."

Mondschein stepped toward the altar. The Blue Fire seemed like a beacon of security in an uncertain world. The acolyte removed the gamma detector from its case and set about his morning tasks.

## V

The message summoning him to Santa Fe arrived three weeks later. It landed on the Nyack chapel like a thunderbolt, striking down through layer after layer of authority before it finally reached the lowly acolyte.

One of Mondschein's fellow acolytes brought him the news, in an indirect way. "You're wanted in Brother Langholt's office, Chris. Supervisor Kirby's there."

Mondschein felt alarm. "What is it? I haven't done anything wrong—not that I know of, anyway."

"I don't think you're in trouble. It's something big, Chris. They're all shaken up. It's some kind of order out of Santa Fe." Mondschein received a curious stare. "What I think they said was that you're being shipped out there on a transfer."

"Very funny," Mondschein said.

He hurried to Langholt's of-

fice. Supervisor Kirby stood against the bookshelf on the left. He was a man enough like Langholt to be his brother. Both were tall, lean men in early middle age, with something of an ascetic look about them.

Mondschein had never seen the Supervisor at such close range before. The story was that Kirby had been a U.N. man, pretty high in the international bureaucracy, until his conversion fifteen or twenty years ago. Now he was a key man in the hierarchy, possibly one of the dozen most important in the entire organization. His hair was clipped short and his eyes were an odd shade of green. Mondschein had difficulty meeting those eyes. Facing Kirby in the flesh, he wondered how he had ever found the nerve to write that letter to him, requesting a transfer to the Santa Fe labs.

Kirby smiled faintly. "Mondschein?"

"Yes, sir."

"Call me Brother, Mondschein. Brother Langholt here has said some good things about you."

*He has?* Mondschein thought in surprise.

Langholt said, "I've told the Supervisor that you're ambitious, eager, and enthusiastic. I've also pointed out that you've got those qualities to an excessive degree,

# THE ELECTROMAGNETIC LITANY

## Stations of the Spectrum

And there is light, before and beyond our vision, for which we give thanks.

And there is heat, for which we are humble.

And there is power, for which we count ourselves blessed.

Blessed be Balmer, who gave us our wavelengths. Blessed be Bohr, who brought us understanding. Blessed be Lyman, who saw beyond sight.

Tell us now the stations of the spectrum.

Blessed be long radio waves, which oscillate slowly.

Blessed be broadcast waves, for which we thank Hertz.

Blessed be short waves, linkers of mankind, and blessed be microwaves.

Blessed be infrared, bearer of nourishing heat.

Blessed be visible light, magnificent in angstroms. (On high holidays only: Blessed be red, sacred to Doppler. Blessed be orange. Blessed be yellow, hallowed by Fraunhofer's gaze. Blessed be green. Blessed be blue for its hydrogen line. Blessed be indigo. Blessed be violet, flourishing with energy.)

Blessed be ultraviolet, with the richness of the sun.

Blessed be X-rays, sacred to Roentgen, the prober within.

Blessed be the gamma, in all its power, blessed be the highest of frequencies.

We give thanks for Planck. We give thanks for Einstein. We give thanks in the highest for Maxwell.

In the strength of the spectrum, the quantum and the holy angstrom, peace!

in some ways. Perhaps you'll learn some moderation at Santa Fe."

Stunned, Mondschein said, "Brother Langholt, I thought my application for a transfer had been turned down."

Kirby nodded. "It's been opened again. We need some control subjects, you see. Non-espers. A few dozen acolytes have been requisitioned, and the computer tossed your name up. You fit the needs. I take it you still want to go to Santa Fe?"

"Of course, sir—Brother Kirby."

"Good. You'll have a week to wrap up your affairs here." The green eyes were suddenly piercing. "I hope you'll prove useful out there, Brother Mondschein."

Mondschein could not make up his mind whether he was being sent to Santa Fe as a belated yielding to his request, or to get rid of him at Nyack. It seemed incomprehensible to him that Langholt would approve the transfer after having rejected it so scathingly a few weeks before. But the Vorster high ones moved in mysterious ways, Mondschein decided. He accepted the puzzling decision in good grace, asking no questions. When his week was up, he knelt in the Nyack chapel one last time, said goodbye to Brother Langholt, and

went to the quickboat station for the noon flight westward.

He was in Santa Fe by mid-morning. The station there, he noticed, was thronged with blue-robed ones, more than he had ever seen in a public place at any one time. Mondschein waited at the station, eyeing the immensity of the New Mexican landscape uneasily. The sky was a strangely bright shade of blue, and visibility seemed unlimited. Miles away Mondschein saw bare sandstone mountains rising. A tawny desert dotted with grayish-green sagebrush surrounded the station. Mondschein had never seen so much open space before.

"Brother Mondschein?" a pudgy acolyte asked.

"That's right."

"I'm Brother Capodimonte. I'm your escort. Got your luggage? Good. Let's go, then."

A teardrop was parked in back. Capodimonte took Mondschein's lone suitcase and racked it. He was about forty, Mondschein guessed. A little old to be an acolyte. A roll of fat bulged over his collar at the back of his neck.

They entered the teardrop. Capodimonte activated it and it shot away.

"First time here?" he asked.

"Yes," Mondschein said. "I'm impressed by the countryside."



**"It's marvelous stuff, isn't it?"**

Life-enhancing. You get a sense of space here. And of history. Prehistoric ruins scattered all over the place. After you're settled, perhaps we can go up to Frijoles Canyon for a look at the cave dwellings. Does that kind of thing interest you, Mondscheine?"

"I don't know much about it," he admitted. "But I'll be glad to look anyway."

"What's your specialty?"

"Nucleonics," Mondscheine said. "I'm a furnace-tender."

"I was an anthropologist until I joined the Brotherhood. I spend my spare time out at the pueblos. It's good to step back into the past occasionally. Especially out here, when you see the future erupting with such speed all around you."

"They're really making progress, are they?"

Capodimonte nodded. "Coming along quite well, they tell me. Of course, I'm not an insider. Insiders don't get to leave the center much. But from what I hear, they're accomplishing great things. Look out there, Brother—that's the city of Santa Fe we're passing right now."

Mondschein looked. *Quaint* was the word that occurred to him. The city was small, both in area and in the size of its buildings, which seemed to be no

higher than three or four stories anywhere. Even at this distance, Mondscheine could make out the dusky reddish-brown of adobe.

"I expected it to be much bigger," Mondscheine said.

"Zoning. Historical monument and all that. They've kept it pretty well as it was a hundred years ago. No new construction's allowed."

Mondschein frowned. "What about the laboratory center, though?"

"Oh, that's not really in Santa Fe. Santa Fe's just the nearest big city. We're actually about forty miles north," said Capodimonte. "Up near the Picuris country. Still plenty of Indians there, you know."

**T**hey were beginning to climb, now. The teardrop surged up hillside roads, and the vegetation began to change, the twisted, gnarled junipers and pinyon pines giving way to dark stands of Douglas fir and ponderosas. Mondscheine still found it hard to believe that he was soon to arrive at the genetic center. It goes to show, he told himself. The only way to get anywhere in the world was to stand up and yell.

He had yelled. They had scolded him for it—but they had sent him to Santa Fe anyhow.

To live forever! To surrender

his body to the experimenters who were learning how to replace cell with cell, how to generate organs, how to restore youth. Mondschein knew what they were working on here. Of course, there were risks, but what of that? At the very worst, he'd die—but in the ordinary scheme of events that would happen anyway. On the other hand, he might be one of the chosen, one of the elect.

A gate loomed before them. Sunlight gleamed furiously from the metal shield.

"We're here," Capodimonte announced.

The gate began to open.

Mondschein said, "Won't I be given some kind of esper scanning before they let me in?"

Capodimonte laughed. "Brother Mondschein, you've been getting a scanning for the last fifteen minutes. If there were any reason to turn you back, that gate wouldn't be opening now. Relax. And welcome. You've made it."

## VI

The official name of the place was the Noel Vorst Center for the Biological Sciences. It sprawled over some fifteen square miles of plateau country, every last inch of it ringed by a well-bugged fence. Within were

dozens of buildings—dormitories, laboratories, other structures of less obvious purpose. The entire enterprise was underwritten by the contributions of the faithful, who gave according to their means, a dollar here, a thousand dollars there.

The center was heart and core of the Vorster operation. Here the research was carried out that served to improve the lives of Vorsters everywhere. The essence of the Brotherhood's appeal was that it offered not merely spiritual counselling—which the old religions could provide just as well—but also the most advanced scientific benefits. Vorster hospitals existed now in every major population center. Vorster medics were at the forefront of their profession. The Brotherhood of the Immanent Radiance healed both body and soul.

And, as the Brotherhood did not attempt to conceal, the greater goal of the organization was the conquest of death. Not merely the overthrow of disease, but the downfall of age itself. Even before the Vorster movement had begun, men had been making great progress in that direction. The mean life expectancy was up to eighty-odd now, about ninety in some countries. That was why the Earth teemed with people despite the stringent birth-control regulations that

were in effect almost everywhere. Close to eleven billion people, now, and the birth rate, though dropping sharply, was still greater than the death rate.

The Vorsters hoped to push the life expectancy still higher, for those who wanted longer lives. A hundred, a hundred twenty, a hundred fifty years—that was the immediate goal. Why not two hundred, three hundred, a thousand later on? "Give us ever-lasting life," the multitudes cried, and flocked to the chapels to make sure they were among the elect.

Of course, that prolongation of life would make the population problem all the more complex. The Brotherhood was aware of that. It had other goals designed to alleviate that problem. To open the galaxy to man—that was the real aim.

The colonization of the universe by humankind had already begun, several generations before Noel Vorst founded his movement. Mars and Venus both had been settled, in differing ways. Neither planet had been hospitable to man to begin with; so Mars had been changed to accommodate man, and man had been changed to survive on Venus. Both colonies were thriving now. Yet little had been accomplished toward solving the pop-

ulation crisis; ships would have to leave Earth day and night for hundreds of years in order to transport enough people to the colonies to make a dent in the multitudes on the home world, and that was economically impossible.

But if the extrasolar worlds could be reached, and if they did not need to be expensively terraformed before they could be occupied, and if some new reasonably economical means of transportation could be devised—

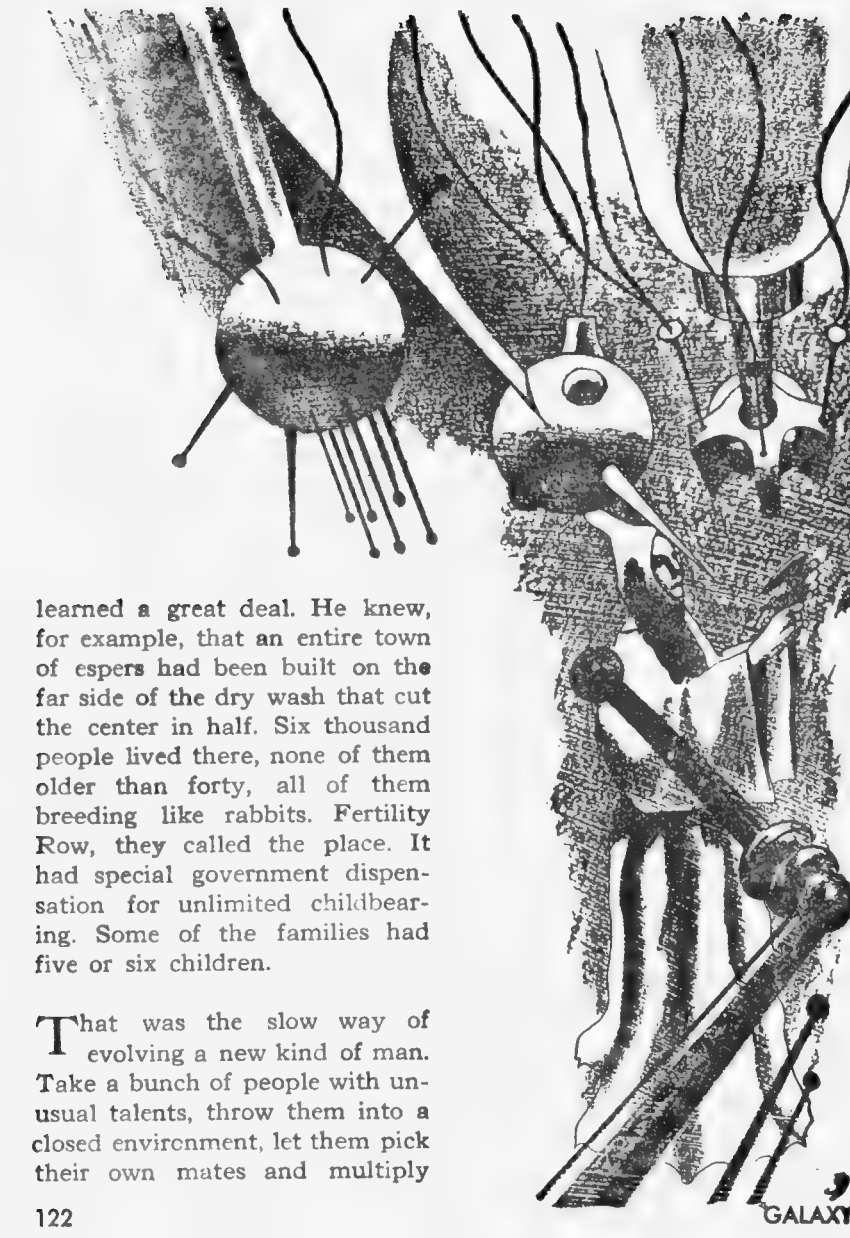
"That's a lot of ifs," Mondschein said.

Capodimonte nodded. "I don't deny that. But that's no reason not to try."

"You seriously think that there'll be a way to shoot people off to the stars on esper power?" Mondschein asked. "You don't think that that's a wild and fantastic dream?"

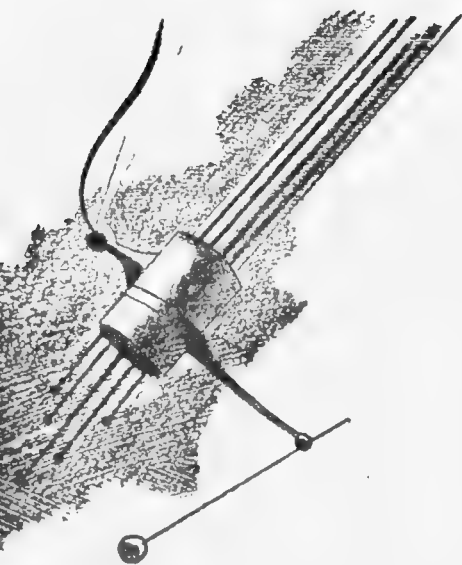
Smiling, Capodimonte said, "Wild and fantastic dreams keep men moving around. Chasing Prester John, chasing the Northwest Passage, chasing unicorns—well, this is our unicorn, Mondschein. Why all the skepticism? Look about you. Don't you see what's going on?"

Mondschein had been at the research center for a week, now. He still did not know his way around the place with any degree of confidence, but he had



learned a great deal. He knew, for example, that an entire town of espers had been built on the far side of the dry wash that cut the center in half. Six thousand people lived there, none of them older than forty, all of them breeding like rabbits. Fertility Row, they called the place. It had special government dispensation for unlimited childbearing. Some of the families had five or six children.

That was the slow way of evolving a new kind of man. Take a bunch of people with unusual talents, throw them into a closed environment, let them pick their own mates and multiply



the genetic pool—well, that was one way. Another was to work directly on the germ plasm. They were doing that here too, in a variety of ways. Tectogenetic microsurgery, polynuclear molding, DNA manipulation — they were trying everything. Cut and carve the genes, push the chromosomes around, get the tiny replicators to produce something slightly different from what had gone before—that was the aim.

How well was it working? That was hard to tell, so far. It would take five or six generations to evaluate the results. Mondschein, as a mere acolyte, did not have the equipment to judge for

himself. Neither did most of those he had contact with—technicians, mainly. But they could speculate, and they did, far into the night.

What interested Mondschein, far more than the experiments in esper genetics, was the work on lifespan prolongation. Here, too, the Vorsters were building on an established body of technique. The organ banks provided replacements for most forms of bodily tissue; lungs, eyes, hearts, intestines, pancreases, kidneys, all could be implanted now, using the irradiation techniques to destroy the graft-rejecting immune reaction. But such piecemeal rejuvenation was not true immortality. The Vorsters sought a way to make the cells of the body regenerate lost tissue, so that the impulse toward continued life came from within, not through external grafts.

Mondschein did his bit. Like most of the bottom-grade people at the center, he was required to surrender a morsel of flesh every few days as experimental material. The biopsies were a nuisance, but they were part of the routine. He was a regular contributor to the sperm bank, too. As a non-esper, he was a good control subject for the work going on. How did you find the gene for teleportation? For telepathy? For any of the paranormal phen-

omena that were lumped under the blanket term of "esp?"

Mondschein cooperated. He played his humble part in the great campaign, aware that he was no more than an infantryman in the struggle. He went from laboratory to laboratory, submitting to tests and needles, and when he was not taking part in such enterprises he carried out his own specialty, which was to serve as a maintenance man on the nuclear power plant that ran the entire center.

It was quite a different life from that in the Nyack chapel. No members of the public came here—no worshippers—and it was easy to forget that he was part of a religious movement. They held services here regularly, of course, but there was a professionalism about the worship that made it all seem rather perfunctory. Without some laymen in the house, it was hard to remain really dedicated to the cult of the Blue Fire.

In this more rarefied climate, Mondschein felt some of his seething impatience ebb away. Now he no longer could dream of going to Santa Fe, for he was there, on the spot, part of the experiments. Now he could only wait, and tick off the moments of progress, and hope.

He made new friends. He de-

veloped new interests. He went with Capodimonte to see the ancient ruins, and he went hunting in the Picuris Range with a lanky acolyte named Weber, and he joined the choral society and sang a lusty tenor.

He was happy here.

He did not know, of course, that he was here as a spy for heretics. All that had been deftly erased from his memory. In its place had been left a triggering mechanism, which went off one night in early September, and abruptly Mondschein felt a strange compulsion take hold.

It was the night of the Mesopotamian Feast, a feast that heralded the autumn solstice. Mondschein, wearing his blue robe, stood between Capodimonte and Weber in the chapel, watching the reactor glare on the altar, listening to the voice intoning, "*The world turns and the configurations change. There is a quantum jump in the lives of men, when doubts and fears are left behind and certainty is born. There is a flash as of light—a surge of inward radiation, a sense of Oneness with—*"

Mondschein stiffened. They were Vorst's words, words he had heard an infinity of times, so familiar to him that they had cut grooves in his brain. Yet now he seemed to be hearing them for the first time. When the words

"a sense of Oneness" were pronounced Mondschein gasped, gripped the seat in front of him, nearly doubled up in agony. He felt a sensation as of a blazing knife twisting in his bowels.

"Are you all right?" Capodimonte whispered.

Mondschein nodded. "Just — cramps—"

He forced himself to straighten up. But he was not all right, he knew. Something was wrong, and he did not know what. He was possessed. He was no longer his own master. Willy-nilly, he would obey an inner command whose nature he did not at the moment know, but which he sensed would be revealed to him at the proper time, and which he would not resist.

## VII

Seven hours later, at the darkest hour of night, Mondschein knew that the time had come.

He woke, sweat-soaked, and slipped into his robe. The dormitory was silent. He left his room, glided quietly down the hall, entered the dropshaft. Moments later he emerged in the plaza fronting the dormitory buildings.

The night was cold. Here on the plateau, the day's warmth fled swiftly once darkness des-

cended. Shivering a little, Mondschein made his way through the streets of the center. No guards were on duty; there was no one to fear, in this carefully selected, rigorously scanned colony of the faithful. Somewhere a watchful esper might be awake, seeking to detect hostile thoughts, but Mondschein was emanating nothing that might seem hostile. He did not know where he was going, nor what he was about to do. The forces that drove him welled from deep within his brain, beyond the fumbling reach of any esper. They guided his motor responses, not his cerebral centers.

He came to one of the information-retrieval centers, a stubby brick building with a blank windowless facade. Pressing his hand against the doorscanner, Mondschein waited to be identified; in a moment, his pattern was checked against the master list of personnel, and he was admitted.

There flowered in his brain the knowledge of what he had come to find: a holographic camera.

They kept such equipment on the second level. Mondschein went to the storeroom, opened a cabinet, removed a compact object six inches square. Unhurriedly, he left the building, sliding the camera into his sleeve.

Crossing another plaza, Mondschein approached Lab XXIIa, the longevity building. He had been there during the day, to give a biopsy. Now he moved quickly through the iris-ing doorway, down a level into the basement, entered the small room just to his left. A rack of photomicrographs lay on a workbench along the rear wall. Mondschein touched a knuckle to the scanner-activator, and a conveyor belt dumped the photomicrographs into the hopper of a projector. They began to appear in the objective of the viewer.

Mondschein aimed his camera and made a hologram of each photomicrograph as it appeared. It was quick work. The camera's laser beam flicked out, bouncing off the subjects, rebounding and intersecting a second beam at 45°. The holograms would be unrecognizable without the proper equipment for viewing; only a second laser beam, set at the same angle as the one with which the holograms had been taken, could transform the unrecognizable patterns of intersecting circles on the plates into images. Those images, Mondschein knew, would be three-dimensional and of extraordinarily fine resolution. But he did not stop to ponder on the use to which they might be put.

He moved through the laboratory, photographing everything that might be of some use. The camera could take hundreds of shots without recharging. Mondschein thumbed it again and again. Within two hours he had made a three-dimensional record of virtually the entire laboratory.

Shivering a little, he stepped out into the morning chill. Dawn was breaking. Mondschein put the camera back where he had found it, after removing the capsule of holographic plates. They were tiny; the whole capsule was not much bigger than a thumbnail. He slid it into his breast pocket and returned to the dormitory.

The moment his head touched the pillow, he forgot that he had left his room at all that night.

In the morning, Mondschein said to Capodimonte, "Let's go to Frijoles today."

"You're really getting the bug, aren't you?" Capodimonte said, grinning.

Mondschein shrugged. "It's just a passing mood. I want to look at ruins, that's all."

"We could go to Puye, then. You haven't been there. It's pretty impressive, and quite different from—"

"No. Frijoles," Mondschein said. "All right?"

They got a permit to leave the



center—it wasn't too difficult for lower-grade technicians to go out—and in the early part of the afternoon they headed westward toward the Indian ruins. The teardrop hummed along the road to Los Alamos, a secret scientific city of an earlier era, but they turned left into Bandelier National Monument before they reached Los Alamos, and bumped down an old asphalt road for a dozen miles until they came to the main center of the park.

**I**t was never very crowded here, but now, with summer over, the place was all but deserted. The two acolytes strolled down the main path, past the circular canyon-bottom pueblo ruin known as Tyuonyi, carved from blocks of volcanic tuff, and up the winding little road that took them to the cave dwellings. When they reached the kiva, the hollowed-out chamber that once had been a ceremonial room for prehistoric Indians, Mondschein said, "Wait a minute. I want to have a look."

He scrambled up the wooden ladder and pulled himself into the kiva. Its walls were blackened by the smoke of ancient fires. Niches lined the wall where once had been stored objects of the highest ritual importance. Calmly and without really under-

standing what he was doing, Mondschein drew the tiny capsule of holograms from his pocket and placed it in an inconspicuous corner of the lefthandmost niche. He spent another moment looking around the kiva, and emerged.

Capodimonte was sitting on the soft white rock at the base of the cliff, looking up at the high reddish wall on the far side of the canyon. Mondschein said, "Feel like taking a real hike today?"

"Where to? Frijolito Ruin?"

"No," Mondschein said. He pointed to the top of the canyon wall. "Out toward Yapashi. Or to the Stone Lions."

"That's a dozen miles," Capodimonte said. "And we hiked there in the middle of July. I'm not up to it again, Chris."

"Let's go back, then."

"You don't need to get angry," Capodimonte said. "Look, we can go to Ceremonial Cave instead. That's only a short hike. Enough's enough, Chris."

"All right," Mondschein said. "Ceremonial Cave it is."

He set the pace for the hike, and it was a brisk one. They had not gone a quarter of a mile before the pudgy Capodimonte was out of breath. Grimly, Mondschein forged on, Capodimonte straggling after him. They reached the ruin, viewed it brief-

ly, and turned back. When they came to park headquarters, Capodimonte said that he wanted to rest a while, to have a snack before returning to the research center.

"Go ahead," Mondschein said. "I'll browse in the curio shop."

He waited until Capodimonte was out of sight. Then, entering the curio shop, Mondschein went to the communion booth. A number popped into his brain, planted there hypnotically months before as he lay slumbering in the Nothing Chamber. He put money in the slot and punched out the number.

"Eternal Harmony," a voice answered.

"This is Mondschein. Let me talk to anybody in Section Thirteen."

"One moment, please."

Mondschein waited. His mind felt blank. He was a sleep-walker now.

A purring, breathy voice said, "Go ahead, Mondschein. Give us the details."

With great economy of words Mondschein told where he had hidden the capsule of holograms. The purring voice thanked him. Mondschein broke the contact and stepped from the booth. A few moments later, Capodimonte entered the curio shop, looking fed and rested.

"See anything you want to buy?" he asked.

"No," Mondschein said. "Let's go."

Capodimonte drove. Mondschein eyed the scenery as it whizzed past, and drifted into deep contemplation. Why did I come here today, he wondered? He had no idea. He did not remember a thing—not a single detail of his espionage. The erasure had been complete.

## VIII

They came for him a week later, at midnight. A ponderous robot rumbled into his room without warning and took up a station beside his bed, the huge grips ready to seize him if he bolted. Accompanying the robot was a hatchet-faced little man named Magnus, one of the supervising Brothers of the center.

"What's happening?" Mondschein asked.

"Get dressed, spy. Come for interrogation."

"I'm no spy. There's a mistake, Brother Magnus."

"Save the arguments, Mondschein. Up. Get up. Don't attempt any violence."

Mondschein was mystified. But he knew better than to debate the matter with Magnus, especially with eight hundred

pounds of lightning-fast metallic intelligence in the room. Puzzled, the acolyte quit his bed and slipped on a robe. He followed Magnus out. In the hallway, others appeared and stared at him. There were guarded whispers.

Ten minutes later, Mondscheine found himself in a circular room on the fifth floor of the research center's main administration building, surrounded by more Brotherhood brass than he had ever expected to see in one room. There were eight of them, all high in councils. A knot of tension coiled in Mondscheine's belly.

"The esper's here," someone muttered.

They had sent a girl, no more than sixteen, pasty-faced and plain. Her skin was flecked with small red blotches. Her eyes were alert, unpleasantly gleaming, never still. Mondscheine despised her on sight, and he tried desperately to keep the emotion under rein, knowing that she could seal his fate with a word. It was no use: she detected his contempt for her the moment she came into the room, and the fleshy lips moved in a quick twitching smile. She drew her dumpy body erect.

Supervisor Magnus said, "This is the man. What do you read in him?"

"Fear. Hatred. Defiance."

"How about disloyalty?"

"His highest loyalty is to himself," the esper said, clasping her hands complacently over her belly.

"Has he betrayed us?" Magnus demanded.

"No. I don't see anything that says he has."

Mondschein said, "If I could ask the meaning of—"

"Quite," Magnus said wittingly.

Another of the supervisors said, "The evidence is incontrovertible. Perhaps the girl's making a mistake."

"Scan him more closely," Magnus directed. "Go back, day by day, through his memory. Don't miss a thing. You know what you're looking for."

Baffled, Mondscheine looked in appeal at the steely faces about him. The girl seemed to be gloating. *Stinking voyeur*, he thought. *Have a good scan!*

The girl said thinly, "He thinks I'm going to enjoy this. He ought to try swimming through a cesspool some time, if he wants to know what it's like."

"Scan him," Magnus said. "It's late and we may have many questions to answer."

She nodded. Mondscheine waited for some sensation telling him that his memories were being

probed, some feeling as of invisible fingers going through his brain. There was no such awareness. Long moments passed in silence, and then the girl looked up in triumph.

"The night of March 13's been erased."

"Can you get beneath the erasure?" Magnus asked.

"Impossible. It's an expert job. They've cut the whole night right out of him. And they've loaded him with counter mnemonics all the way down the track. He doesn't know a thing about what he's been up to," the girl said.

The Supervisors exchanged glances. Mondschein felt perspiration soaking through his robe. The smell of it stung his nostrils. A muscle throbbed in his cheek, and his forehead itched murderously, but he did not move.

"She can go," Magnus said.

With the esper out of the room, the atmosphere grew a little less tense, but Mondschein did not relax. In a bleak, hopeless way, he felt that he had been tried and condemned in advance for a crime whose nature he did not even know. He thought of some of the perhaps apocryphal stories of Brotherhood vindictiveness: the man with the pain centers removed, the esper staked out to endure an overload, the lobotomized biologist, the renegade supervisor who was left in a

Nothing Chamber for ninety-six consecutive hours. He realized that he might find out very shortly just how apocryphal those stories were.

Magnus said, "For your information, Mondschein, someone broke into the longevity lab and shot the whole place up with a holograph. It was a very neat job, except that we've got an alarm system in there, and you happened to trip it."

"Sir, I swear, I never set foot inside —"

"Save it, Mondschein. The morning after, we ran a neutron activation analysis in there, just as a matter of routine. We turned up traces of tungsten and molybdenum that brushed off you while you were taking those holograms. They match your skin pattern. It took us a while to track them to you. There's no doubt — same neutron pattern on the camera, on the lab equipment, and on your hand. You were sent in here as a spy, whether you know it or not."

Another supervisor said, "Kirby's here."

"I'd like to know what he's got to say about this," Magnus muttered darkly.

Mondschein saw the lean, long-limbed figure of Reynolds Kirby enter the room. His thin lips were clamped tightly together.

He seemed to have aged at least ten years since Mondschein had seen him in Langholt's office.

Magnus whirled and said with open irritation, "Here's your man, Kirby. What do you think of him now?"

"He's not my man," said Kirby.

"You approved his transfer here," Magnus snapped. "Maybe we ought to run a scan on you, eh? Somebody worked a loaded bomb into this place, and the bomb's gone off. He handed a whole laboratory away."

"Maybe not," Kirby said. "Maybe he's still got the data on him somewhere?"

"He was out of the center the day after the laboratory was entered. He and another acolyte went to visit some ancient Indian ruins. It's a safe bet that he disposed of the holograms while he was out there."

"Have you tracked the courier?" Kirby asked.

"We're getting away from the point," said Magnus. "The point is that this man came to the center on your recommendation. You picked him out of nowhere and put him here. What we'd all like to know is where you found him and why you sent him here. Eh?"

Kirby's fleshless face worked wordlessly for a moment. He glowered at Mondschein, then

stared in even greater hostility at Magnus. At length he said, "I can't take responsibility for shipping this man here. It happens that he wrote to me in February, asking to be transferred out of normal chapel duties and sent here. He was going over the heads of his local administrators, so I sent the letter back suggesting that he be disciplined a little. A few weeks later I received instructions that he be transferred out here. I was startled, to say the least, but I approved them. That's all I know about him."

Magnus extended a forefinger and tapped the air. "Wait one moment, Kirby. You're a Supervisor. Who gives you instructions anyway? How can you be pressured into making a transfer when you're in high authority?"

"The instructions came from higher authority."

"I find that hard to believe," Magnus said.

Mondschein sat stock still, enthralled by this battle between Supervisors despite his own predicament. He had never understood how he had managed to get that transfer, and now it began to seem as though no one else understood it, either.

Kirby said, "The instructions came from a source I'm reluctant to name."

"Covering up for yourself, Kirby?"

"You're taking liberties with my patience, Supervisor Magnus," said Kirby tightly.

"I want to know who put this spy among us."

Kirby took a deep breath. "All right," he said. "I'll tell you. All of you be my witness to this. The order came from Vorst. Noel Vorst called me and said he wanted this man sent here. Vorst sent him. *Vorst!* What do you make of that?"

## IX

They were not finished interrogating Mondschein. Waves of espers worked him over, trying to get beneath the erasure, without success. Organic methods were employed too: Mondschein was shot full of truth serums old and new, everything from sodium pentothal on up, and batteries of hard-faced brothers questioned him rigorously. Mondschein let them strip his soul bare, so that every bit of nastiness, every self-seeking moment, everything that made him a human being stood out in bold relief. They found nothing useful. Nor did a four-hour immersion in a Nothing Chamber yield results; Mondschein was too wobbly-brained to be able to answer questions for three days afterward.

He was as puzzled as they were. He would gladly have confessed the most heinous of sins; in fact, several times during the long interrogation he *did* confess, simply to have it over with, but the espers read his motives plainly and laughed his confessions to scorn. Somehow, he knew, he had fallen into the hands of the enemies of the Brotherhood, and had concluded a pact with them, a pact which he had fulfilled. But he had no inner knowledge of any of that. Whole segments of his memory were gone, and that was terrifying to him.

Mondschein knew that he was finished. They would not let him remain at Santa Fe, naturally. His dream of being on hand when immortality was achieved now was ended. They would cast him out with flaming swords, and he would wither and grow old, cursing his lost opportunity. That is, if they did not kill him outright, or work some subtle form of slow destruction on him.

A light December snow was falling on the day that Supervisor Kirby came to tell him his fate.

"You can go, Mondschein," the tall man said somberly.

"Go? Where?"

"Wherever you like. Your case has been decided. You're guilty, but there's reasonable doubt of

your volition. You're being expelled from the Brotherhood, but otherwise no action will be taken against you."

"Does that mean I'm expelled from the church as a communicant too?"

"Not necessarily. That's up to you. If you want to come to worship, we won't deny our comfort to you," Kirby said. "But there's no possibility of your holding a position within the church. You've been tampered with, and we can't take further chances with you. I'm sorry, Mondschein."

Mondschein was sorry too, but relieved as well. They would not take revenge on him. He would lose nothing but his chance at life everlasting — and perhaps he might even retain that, just as any other common worshipper did.

He had forfeited, of course, his chance to rise in the Vorster hierarchy. But there was another hierarchy too, Mondschein thought, where a man might move more swiftly.

The Brotherhood took him to the city of Santa Fe proper, gave him some money, and turned him loose. Mondschein headed immediately for the nearest chapel of the Transcendent Harmony, which turned out to be in Albuquerque, twenty minutes away.

"We've been expecting you," a Harmonist in flowing green robes told him. "I've got instructions to contact my superiors the moment you show up."

Mondschein was not surprised at that. Nor was he greatly astonished to be told, a short while later, that he was to leave by quickboat for Rome right away. The Harmonists would pay his expenses, he was informed.

A slim woman with surgically altered eyelids met him at the station in Rome. She did not look familiar to him, but she smiled at him as though they were old friends. She conveyed him to a house on the Via Flaminia, a few dozen miles north of Rome, where a squat-sallow-faced Harmonist Brother with a bulbous nose awaited him.

"Welcome," the Harmonist said. "Do you remember me?"

"No, I — yes. Yes!"

Recollection flooded back, dizzying him, staggering him. There had been three heretics in the room that other time, not just one, and they had given him wine, and promised him a place in the Harmonist hierarchy, and he had agreed to let himself be smuggled into Santa Fe, a soldier in the great crusade, a warrior of light, a Harmonist spy.

"You did very well, Mondschein," the heretic said unc-

tuously. "We didn't think you'd be caught so fast, but we weren't sure of all their detection methods. We could only guard against the espers, and we did a fair enough job of that. At any rate, the information you provided was extremely useful."

"And you'll keep your end of the bargain? I'm to get a tenth-level job?"

"Of course. You didn't think we'd cheat you, did you? You'll have a three-month indoctrination course, so you can attain insight into our movement. Then you'll assume your new duties in our organization. Which would you prefer, Mondschein — Mars or Venus?"

"Mars or Venus? I don't follow you."

"We're going to attach you to our missionary division. You'll be leaving Earth by next summer, to carry on our work in one of the colonies. You're free to choose the one you prefer."

Mondschein was aghast. He had never bargained for this. Selling out to these heretics, only to get shipped off to an alien

world and likely martyrdom—no, he had never expected anything like that.

*Faust didn't expect his troubles either*, Mondschein thought coldly.

He said, "What kind of trick is this? You've got no right to ask me to become a missionary!"

"We offered you a tenth-level job," the Harmonist said quietly. "The option of choosing what division it would be in remained with us."

Mondschein was silent, though there was a fierce throbbing in his skull. He could walk out—and be nothing. Or he could submit, and be—what?

Dead in six weeks, as likely as not.

"I'll take it," he said. His words sounded like a cage clanging shut.

The Harmonist nodded. "I thought you would," he said.

He turned to leave, then paused.

He asked curiously, "Did you really think you could name your own position—spy?"

— ROBERT SILVERBERG





# "Repent Harlequin!" said the Ticktockman

by HARLAN ELLISON

*"Repent, Harlequin!" said  
the Ticktockman . . . but the  
time for repentance was past*

There are always those who ask, what is it all about? For those who need to ask, for those who need points sharply made, who need to know "where it's at", this:

"The mass of men serve the state thus, not as men mainly, but as machines, with their bodies. They are the standing army, and the militia, jailors, constables, posse comitatus, etc. In most cases there is no free exercise whatever of the judgment or of the moral sense; but they put themselves on a level with wood and earth and stones; and wooden men can perhaps be manufactured that will serve the purpose as well. Such command no more respect than men of straw or a lump of dirt. They have the same sort of worth only as horses and dogs. Yet

such as these even are commonly esteemed good citizens. Others — as most legislators, politicians, lawyers, ministers, and office-holders — serve the state chiefly with their heads; and, as they rarely make any moral distinctions, they are as likely to serve the Devil, without intending it, as God. A very few, as heroes, patriots, martyrs, reformers in the great sense, and *men*, serve the state with their consciences also, and so necessarily resist it for the most part; and they are commonly treated as enemies by it."

— Henry David Thoreau,  
"Civil Disobedience"

That is the heart of it. Now begin in the middle, and later learn the beginning. The end will take care of itself.

**B**ecause it was the very world it was, the very world they had allowed it to *become*, for months his activities did not come to the alarmed attention of The Ones Who Kept the Machine Functioning Smoothly, the ones who poured the very best butter over the cams and main-springs of the culture. Not until it had become obvious that somehow, someway, he had become a notoriety, a celebrity, perhaps even a hero for what Officialdom inescapably tagged "an emotionally disturbed segment of the populace," did they turn it over to the Ticktockman and his legal machinery. But by then, because it was the very world it was, and they had no way to predict he would happen — possibly a strain of disease long-defunct, now, suddenly reborn in a system where immunity had been forgotten, had lapsed — he had been allowed to become too real. Now he had form and substance.

He had become a *personality*, something they had filtered out of the system many decades ago. But there it was, and there he was, a very definitely imposing personality. In certain middle-class circles it was thought disgusting. Vulgar ostentation. Anarchistic. Shameful. In others, there was only sniggering, those strata where thought is subjugat-

ed to form and to ritual, niceties, proprieties. But down below, ah, down below, where the people always needed their saints and sinners, their bread and circuses, their heroes and villains, he was considered a Bolivar; a Napoleon; a Robin Hood; a Dick Bong (Ace of Aces); a Jesus; a Jomo Kenyatta.

And at the top — where, like socially attuned Shipwreck Kellys, every tremor and vibration threatens to dislodge the wealthy, powerful and titled from their flagpoles — he was considered a menace; a heretic; a rebel; a disgrace; a peril. He was known down the line, to the very heart-meat core, but the important reactions were high above and far below. At the very top, at the very bottom.

So his file was turned over, along with his time-card and his cardioplate, to the office of the Ticktockman.

The Ticktockman: very much over six feet tall, often silent, a soft purring man when things went timewise.

Even in the cubicles of the hierarchy, where fear was generated, seldom suffered, he was called the Ticktockman. But no one called him that to his mask.

You don't call a man a hated name, not when that man, behind his mask, is capable of revoking the minutes, the hours, the days

and nights, the years of your life. He was called the Master Time-keeper to his mask.

"This is *what* he is," said the Ticktockman with genuine softness, "but not *who* he is. This time-card I'm holding in my left hand has a name on it, but it is the name of *what* he is, not *who* he is. This cardioplate here in my right hand is also named, but not whom named, merely *what* named. Before I can exercise proper revocation I have to know who this *what* is."

To his staff, all the ferrets, all the loggers, all the finks, all the commex, even the mineez, he said, "Who is this Harlequin?"

He was not purring smoothly. Timewise, it was jangle.

However, it was the longest single speech they had ever heard him utter at one time—the staff, the ferrets, the loggers, the finks, the commex, but not the mineez, who usually weren't around to know, in any case. But even they scurried to find out—

Who is the Harlequin?

High above the third level of the city, he crouched on the humming aluminum-frame platform of the air-boat (foof! air-boat, indeed! swizzleskid is what it was, with a tow-rack jerry-rigged) and stared down at the neat Mondrian arrangement of the buildings.

Somewhere nearby, he could hear the metronomic left-right-left of the 2:47 P.M. shift, entering the Timkin roller-bearing plant in their sneakers. A minute later, precisely, he heard the softer right-left-right of the 5:00 A.M. formation going home.

An elfish grin spread across his tanned features, and his dimples appeared for a moment. Then, scratching at his thatch of auburn hair, he shrugged within his motley, as though girding himself for what came next, and threw the joystick forward, and bent into the wind as the air-boat dropped. He skimmed over a slidewalk, purposely dropping a few feet to crease the tassels of the ladies of fashion, and—in inserting thumbs in large ears—he stuck out his tongue, rolled his eyes and went wugga-wugga-wugga. One pedestrian skittered and tumbled, sending parcels everywhichway, another wet herself, a third keeled slantwise and the walk was stopped automatically by the servitors till she could be resuscitated. It was a minor diversion.

Then he swirled away on a vagrant breeze and was gone. Hi-ho.

As he rounded the cornice of the Time-Motion Study Building, he saw the shift, just boarding the slidewalk. With practiced motion and an absolute conserva-

tion of movement, they sidestepped up onto the slowstrip and (in a chorus line reminiscent of a Busby Berkeley film of the antediluvian 1930's) advanced across the strips ostrich-walking till they were lined up on the expresstrip.

Once more, in anticipation, the elfin grin spread, and there was a tooth missing back there on the left side. He dipped, skimmed, and swooped over them. And then, scrunching about on the air-boat, he released the holding pins that fastened shut the ends of the home-made pouring troughs that kept his cargo from dumping prematurely. And as he pulled the trough-pins, the air-boat slid over the factory workers and one hundred and fifty thousand dollars worth of jelly beans cascaded down on the expresstrip.

Jelly beans! Millions and billions of purples and yellows and greens and licorice and grape and raspberry and mint and round and smooth and crunchy outside and soft-mealy inside and sugary and bouncing jouncing tumbling clittering clattering skittering fell on the heads and shoulders and hardhats and carapaces of the Timkin workers, tinkling on the sidewalk and bouncing away and rolling about underfoot and filling the sky on their way down with all the colors of joy and

childhood and holidays, coming down in a steady rain, a solid wash, a torrent of color and sweetness out of the sky from above, and entering a universe of sanity and metronomic order with quite-mad coccoo newness. Jelly beans!

The shift workers howled and laughed and were pelted, and broke ranks, and the jelly beans managed to work their way into the mechanism of the slidewalks; after which there was a hideous scraping as the sound of a million fingernails rasped down a quarter of a million blackboards, followed by a coughing and a sputtering. And then the slidewalks all stopped and everyone was dumped thisawayand-thataway in a jackstraw tumble, and still laughing and popping little jelly-bean eggs of childish color into their mouths. It was a holiday, and a jollity, an absolute insanity, a giggle. But...

The shift was delayed seven minutes.

They did not get home for seven minutes.

The master schedule was thrown off by seven minutes.

Quotas were delayed by inoperative slidewalks for seven minutes.

He had tapped the first domino in the line, and one after another, the others had fallen.

The System had been seven minutes' worth of disrupted. It was a tiny matter, hardly worthy of note. But in a society where the single driving force was order and unity and promptness and clocklike precision and attention to the clock, reverence of the gods of the passage of time, it was a disaster of major importance.

So he was ordered to appear before the Ticktockman.

It was broadcast across every channel of the communications web. He was ordered to be *there* at 7:00 dammit on time. And they waited, and they waited. But he didn't show up till almost ten-thirty, at which time he merely sang a little song about moonlight in a place no one had ever heard of, called Vermont, and vanished again. But they had all been waiting since seven, and it wrecked *hell* with their schedules. So the question remained: Who is the Harlequin?

But the *unasked* question (more important of the two) was: how did we get *into* this position, where a laughing, irresponsible japer of jabberwocky and jive could disrupt our entire economic and cultural life with a hundred and fifty thousand dollars worth of jelly beans?

*Jelly* for God's sake beans! This is madness! Where did he get the money to buy a hundred

and fifty thousand dollars worth of jelly beans? (They knew it would have cost that much, because they had a team of Situation Analysts pulled off another assignment, and rushed to the sidewalk scene to sweep up and count the candies, and produce findings, which disrupted *their* schedules and threw their entire branch at least a day behind.) Jelly beans! Jelly . . . beans? Now wait a second — a second accounted for — no one has manufactured jelly beans for over a hundred years.

That's another good question. More than likely it *will never be* answered to your *complete* satisfaction. But then, *how many* questions ever are?

The middle you know. Here is the beginning. How it starts:

A desk pad. Day for day, and turn each day. 9:00 — open the mail. 9:45 — appointment with planning commission board. 10:30 — discuss installation progress charts with J. L. 11:15 — pray for rain. 12:00 — lunch. *And so it goes.*

"I'm sorry, Miss Grant, but the time for interviews was set at 2:30, and it's almost five now. I'm sorry you're late, but those are the rules. You'll have to wait till next year to submit application for this college *again*." *And so it goes.*

"I couldn't wait, Fred. I had to be at Pierre Cartain's by 3:00, and you said you'd meet me under the clock in the terminal at 2:45, and you weren't there, so I had to go on. You're always late, Fred. If you'd been there, we could have sewed it up together, but as it was, well, I took the order alone . . ." *And so it goes.*

Dear Mr. and Mrs. Atterley: in reference to your son Gerold's constant tardiness, I am afraid we will have to suspend him from school unless some more reliable method can be instituted guaranteeing he will arrive at his classes on time. Granted he is an exemplary student, and his marks are high, his constant flouting of the schedules of this school make it impractical to maintain him in a system where the other children seem capable of getting where they are supposed to be on time *and so it goes.*

YOU CANNOT VOTE UNLESS YOU APPEAR AT 8:45 A.M.

"I don't care if the script is good, I need it Thursday!"

CHECK-OUT TIME IS 2:00 P.M.

"You got here late. The job's taken. Sorry."

YOUR SALARY HAS BEEN DOCKED FOR TWENTY MINUTES TIME LOST.

"God, what time is it, I've gotta run!"

*And so it goes. And so it goes. And so it goes. And so it goes goes goes goes goes tick tock tick tock tick tock and one day we no longer let time serve us, we serve time and we are slaves of the schedule, worshippers of the sun's passing, bound into a life predicated on restrictions because the system will not function if we don't keep the schedule tight.*

Until it becomes more than a minor inconvenience to be late. It becomes a sin. Then a crime.

EFFECTIVE 15 JULY 2389, 12:00:00 midnight, the office of the Master Timekeeper will require that all citizens to submit their time-cards and cardioplates for processing. In accordance with Statute 555-7-SGH-999 governing the revocation of time per capita, all cardioplates will be keyed to the individual holder and —

What they had done was devise a method of curtailing the amount of life a person could have. If he was ten minutes late, he lost ten minutes of his life. An hour was proportionately worth more revocation. If someone was consistently tardy, he might find himself, on a Sunday night, receiving a communique from the Master Timekeeper that his time had run out, and he would be "turned off" at high noon on Monday, please straighten your affairs, sir.

And so, by this simple scientific expedient (utilizing a scientific process held dearly secret by the Ticktockman's office) the system was maintained. It was the only expedient thing to do. It was, after all, patriotic. The schedules had to be met. After all, there was a war on!

But wasn't there always?

"Now that is really disgusting," the Harlequin said, when pretty Alice showed him the wanted poster. "Disgusting and *highly* improbable. After all, this isn't the days of desperadoes. A *wanted* poster!"

"You know," Alice noted, "you speak with a great deal of inflection."

"I'm sorry," said the Harlequin humbly.

"No need to be sorry. You're always saying 'I'm sorry'. You have such massive guilt. Everett, it's really very sad."

"I'm sorry," he repeated, then pursed his lips so the dimples appeared momentarily. He hadn't wanted to say that at all. "I have to go out again. I have to *do* something."

Alice slammed her coffee-bulb down on the counter. "Oh for God's sake, Everett, can't you stay home just one night! Must you always be out in that ghastly clown suit, running around *annoying* people?"

"I'm —" he stopped, and clapped the jester's hat onto his Auburn thatch with a tiny tingling of bells. He rose, rinsed out his coffee-bulb at the tap, and put it into the drier for a moment. "I have to go."

She didn't answer. The faxbox was purring, and she pulled a sheet out, read it, threw it toward him on the counter. "It's about you. Of course. You're ridiculous."

He read it quickly. It said the Ticktockman was trying to locate him. He didn't care, he was going out to be late again. At the door, dredging for an exit line, he hurled back petulantly, "Well, you speak with inflection, *too*!"

Alice rolled her pretty eyes heavenward. "You're ridiculous." The Harlequin stalked out, slamming the door, which sighed shut softly, and locked itself.

There was a gentle knock, and Alice got up with an exhalation of exasperated breath, and opened the door. He stood there. "I'll be back about ten-thirty, okay?"

She pulled a rueful face. "Why do you tell me that? Why? You *know* you'll be late! You *know* it! You're *always* late, so why do you tell me these dumb things?" She closed the door.

On the other side, the Harlequin nodded to himself. *She's right. She's always right. I'll be late. I'm always late.*

He shrugged again, and went off to be late once more.

He had fired off the firecracker rockets that said: I will attend the 115th annual International Medical Association Invocation at 8:00 P.M. precisely. I do hope you will join me.

The words had burned in the sky, and of course the authorities were there, lying in wait for him. They assumed, naturally, that he would be late. He arrived twenty minutes early, while they were setting up the spiderwebs to trap and hold him, and blowing a large bullhorn, he frightened and unnerved them so that their own moisturized encirclement webs sucked closed, and they were hauled up, kicking and shrieking, high above the amphitheater's floor. The Harlequin laughed and laughed, and apologized profusely. The physicians, gathered in solemn conclave, roared with laughter, and accepted the Harlequin's apologies with exaggerated bowing and posturing, and a merry time was had by all, who thought the Harlequin was a regular foofaraw in fancy pants; all, that is, but the authorities, who had been sent out by the office of the Ticktockman, who hung there like so much dockside cargo, hauled up above the floor unseemly fashion. of the amphitheater in a most

(In another part of the same city where the Harlequin carried on his "activities", totally unrelated in every way to what concerns here, save that it illustrates the Ticktockman's power and import, a man named Marshall Delahanty received his turn-off notice from the Ticktockman's office. His wife received the notification from the gray-suited mince who delivered it, with the traditional "look of sorrow" plastered hideously across his face. She knew what it was, even without unsealing it. It was a billet-doux of immediate recognition to everyone these days. She gasped, and held it as though it were a glass slide tingled with botulism, and prayed it was not for her. Let it be for Marsh, she thought, brutally, realistically, or one of the kids, but not for me, please dear God, not for me. And then she opened it, and it was for Marsh, and she was at one and the same time horrified and relieved. The next trooper in the line had caught the bullet. "Marshall," she screamed, "Marshall! Termination, Marshall! OhmiGod, Marshall, whatt! we do, whatt! we do, Marshall, omigodmarshall . . ." and in their home that night was the sound of tearing paper and fear, and the stink of madness went up the flue and there was nothing, absolutely nothing they could do.



(But Marshall Delahanty tried to run. And early the next day, when turn-off time came, he was deep in the forest two hundred miles away, and the offices of the Ticktockman blanked his cardio-plate, and Marshall Delahanty keeled over, running, and his heart stopped, and the blood dried up on its way to his brain, and he was dead that's all. One light went out on his sector map in the office of the Master Timekeeper, while notification was entered for fax reproduction, and Georgette Delahanty's name was entered on the dole roles till she could re-marry. Which is the end of the footnote, and all the point that need be made, except don't laugh, because that is what would happen to the Harlequin if ever the Ticktockman found out his real name. It isn't funny.)

The shopping level of the city was thronged with the Thursday-colors of the buyers. Women in canary yellow chitons and men in pseudo-Tyrolean outfits that were jade and leather and fit very tightly, save for the balloon pants.

When the Harlequin appeared on the still-being-constructed shell of the new Efficiency Shopping Center, his bullhorn to his elfishly laughing lips, everyone pointed and stared. He berated them.

"Why let them order you about? Why let them tell you to hurry and scurry like ants or maggots? Take your time! Saunter a while! Enjoy the sunshine, enjoy the breeze, let life carry you at your own pace! Don't be slaves of time, it's a helluva way to die, slowly, by degrees. Down with the Ticktockman!"

Who's the nut? most of the shoppers wanted to know. Who's the nut oh wow I'm gonna be late I gotta run . . .

And the construction gang on the Shopping Center received an urgent order from the office of the Master Timekeeper that the dangerous criminal known as the Harlequin was atop their spire, and their aid was urgently needed in apprehending him. The work crew said no, they would lose time on their construction schedule, but the Ticktockman managed to pull the proper threads of governmental webbing, and they were told to cease work and catch that nitwit up there on the spire with the bullhorn. So a dozen and more burly workers began climbing into their construction platforms, releasing the a-grav plates, and rising toward the Harlequin.

After the debacle (in which, through the Harlequin's attention to personal safety, no one was seriously injured), the workers tried to re-assemble and assault

him again. But it was too late. He had vanished. It had attracted quite a crowd, however, and the shopping cycle was thrown off by simply hours. The purchasing needs of the system were therefore falling behind, and so measures were taken to accelerate the cycle for the rest of the day, but it got bogged down and speeded up and they sold too many floatvalves and not nearly enough wegglers, which meant that the popli ratio was off, which made it necessary to rush cases and cases of spoiling Smash-O to stores that usually needed a case only every three or four hours. The shipments were bollixed, the trans-shipments were mis-routed, and in the end, even the swizzleskid industries felt it.

"Don't come back till you have him!" the Ticktockman said, very quietly, very sincerely, extremely dangerously.

They used dogs. They used probes. They used cardioplate crossoffs. They used teepers. They used bribery. They used stiktytes. They used intimidation. They used torment. They used torture. They used finks. They used cops. They used search & seizure. They used fal-laron. They used betterment incentive. They used fingerprints. They used Bertillon. They used cunning. They used guils. They

used treachery. They used Raoul Mitgong, but he didn't help much. They used applied physics. They used techniques of criminology.

And what the hell: they caught him.

After all, his name was Everett C. Marm, and he wasn't much to begin with, except a man who had no sense of time.

"Repent, Harlequin!" said the Ticktockman.

"Get stuffed!" the Harlequin replied, sneering.

"You've been late a total of sixty-three years, five months, three weeks, two days, twelve hours, forty-one minutes, fifty-nine seconds, point oh three six one one one microseconds. You've used up everything you can, and more. I'm going to turn you off."

"Scare someone else. I'd rather be dead than live in a dumb world with a bogey man like you."

"It's my job."

"You're full of it. You're a tyrant. You have no right to order people around and kill them if they show up late."

"You can't adjust. You can't fit in."

"Unstrap me and I'll fit my fist into your mouth."

"You're a non-conformist."

"That didn't used to be a felony."

**"It is now. Live in the world around you."**

**"I hate it. It's a terrible world."**

**"Not everyone thinks so. Most people enjoy order."**

**"I don't, and most of the people I know don't."**

**"That's not true. How do you think we caught you?"**

**"I'm not interested," said the Harlequin."**

**"A girl named pretty Alice told us who you were."**

**"That's a lie."**

**"It's true. You unnerve her. She wants to belong, she wants to conform, I'm going to turn you off."**

**"Then do it already, and stop arguing with me."**

**"I'm not going to turn you off."**

**"You're an idiot!"**

**"Repent, Harlequin," said the Ticktockman.**

**"Get stuffed."**

So they sent him to Coventry. And in Coventry they worked him over. It was just like what they did to Winston Smith in 1984, which was a book none of them knew about. But the techniques are really quite ancient, and so they did it to Everett C. Marm, and one day quite a long time later, the Harlequin appeared on the communications web, appearing elfish and dimpled and

bright-eyed, and not at all brain-washed, and he said he had been wrong, that it was a good, a very good thing indeed, to belong, and be right on time hip-ho and away we go, and everyone stared up at him on the public screens that covered an entire city block, and they said to themselves, well, you see, he was just a nut after all, and if that's the way the system is run, then let's do it that way, because it doesn't pay to fight city hall, or in this case, the Ticktockman. So Everett C. Marm was destroyed, which was a loss, because of what Thoreau said earlier, but you can't make an omelette without breaking a few eggs, and in every revolution, a few die who shouldn't, but they have to, because that's the way it happens, and if you make only a little change, then it seems to be worthwhile. Or, to make the point lucidly:

**"U**h, excuse me, sir, I, uh, don't know how to uh, to tell you this, but you were three minutes late. The schedule is a little, uh, bit off."

He grinned sheepishly.

**"That's ridiculous!"** murmured the Ticktockman behind his mask. **"Check your watch."** And then he went into his office, going mrmeee, mrmeee, mrmeee, mrmeee.

**—HARLAN ELLISON**

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# Galaxy Bookshelf

*By Algis Budrys*

**W**hat sane man would be a writer? Consider that he has to please himself; he may claim he does not care what he writes or how, but he must write to sell, and that elementary need alone operates to shape his choice of word-arrangements. He may claim that he does not care if he sells . . . but you can see where that leads. The writer who doesn't care is the least free of all writers, and often a suffering slave to his own notions of excellence.

Then he has to get past an editor, who is in turn conscious of his publisher. To an at least appropriate degree, and often to a point of paranoia, the three of them are conscious of what they believe the reader wants. In many cases, there is the background influence of the distributor, who is

dogmatically sure of what will sell and is often in a position to influence everything from cover design to content. The distributor is in turn marginally conscious of the retailer — the storekeeper in whose power it lies to bury a magazine behind a stack of competitors, or to return a bundle unopened, unsold.

But let us assume that the writer's words, however shaped by conscious and unconscious modifications at all these levels, have been published, sold, and are now held before a reader's eyes.

Can the reader read? What influences in his life have made certain words compellingly significant to him? Never mind the twelve-year-old who has stumbled across his first unabridged dictionary, and the certifiable

maniac who underscores the words he likes in the publications he likes; these are the extreme cases. But they are significant; you cannot tell me that an individual sufficiently word-conscious to read for pleasure has not developed a complex tangle of reflexes triggered by words. This tangle is not the same as anyone else's, and therefore no reader reads what the writer has written.

Not only are words an arbitrary code with less than perfect accuracy, so are letters only arbitrary marks on paper. I can read German, for instance — but not in the quasimedieval characters of the 1930's. Some groups of letters are difficult for people to read accurately — if your name is Bulger, Swensen, Poul Anderson, Frederik Pohl, Fredric Brown or Frederic Wakeman, or if you are quite accustomed to receiving mail addressed to Algis Burdys, you know exactly what I mean. If you have a name that ends in "s," or if you will observe home-made signs selling tomatoes or chili-and-beans, you will quickly note what can be done with a possessive apostrophe in reckless hands. People have certain predispositions when deciphering the code we call language — in fact, we mis-call it, for in this case we are discussing literacy — one of the more infuriat-

ing of which is an apparently universal tendency to call one very clangorous sf novel "*Rogue Moon*." (A man who wanted me to hire him once devoted three single-spaced pages to telling me what a great book that was, and not once in some twenty detailed references to its title and specific scenes therein did he even accidentally tumble to the fact that the publisher had called it *Rogue Moon*. Yet he wanted the job very badly.)

And then, poor chap, the writer has gotten his work out into print, and at least some of his readers — as frail, as tangled inside — are critics. Critics think they know everything that went on in the writer's mind, and where he did not say what he intended to say. They correct his arrangements for him before he even makes them, and then they write essays about them.

I, fortunately, am a book reviewer. I only know all about editing, publishing, book production, distribution and the difference between making and missing the distributor's tie (not an item of accessory apparel, in this case). I would not dream of telling you what goes on in the mind of any specific writer. I have some understanding of what goes on in my own mind, of course, when I am being a writer, and would be remiss if I did not ascribe my

habits and prejudices to the people whose books I review. All this I write down, and send off to my editor, who marks it up and sends it to his printer, who hands it to his composing room foreman, etc., etc., and after a while you get it, complete with occasional typographical errors and idiosyncratic editing, and you understand it, don't you?

**M***ortals and Monsters* (Ballantine #U2236, 50c, paper original) is the third collection of short stories by Lester del Rey, *Robots and Changelings*, also from Ballantine, having intervened between this one and . . . *And Some Were Human*. These are stories written since 1950; their sources are diverse. Of the twelve pieces here, five are from *Galaxy*; three are from *Astrounding*, and the rest from other sources including *The Magazine of Fantasy and Science Fiction*. In other words, del Rey's work has adapted itself to the requirements of every major market in the past twenty-five years of this field.

Or has it? Generally speaking, there are no basic differences in the essential natures of these stories; it is impossible to guess where each first appeared simply on the basis of its text. They vary a little bit — not much — in their degree of success on their

own terms. They vary less than that from the tone and approach taken in his earliest work. That includes some of the best fantasy *Unknown* ever published, as well as a considerable canon of robot stories which began with the poignant and gentle "Helen O'Loy" at almost the same time, to the week, when Eando Binder's "I, Robot" (the lurching, hollow short story, not Isaac Asimov's later series eventually collected under that name) was demonstrating the uses of bathos. Finally, the entire body of del Rey's work differs less from other kinds of stories he has done under other names than it does from most of the science fiction that has appeared during that time.

From the beginning of his career to date, del Rey has remained his own individual. He has listened respectfully to various editorial dicta, thoughtfully considered the requirements of his market, chosen the editors he will work for and then has sat down to write his story so that it came out a del Rey story, of a piece with del Rey and with what del Rey feels. In the last analysis, he writes for himself, and for his readers. Consequently, he has lasted longer, and done more good work, than hundreds of practitioners who have come charging over the horizon.

His touch as a storyteller is quiet. The typical del Rey character is an individual who is trying to do the decent thing to the best of his ability. The typical del Rey story problem is that of a good and faithful being trying to understand a complex situation which prevents his immediately knowing the decent thing to do. When he writes a story whose problem becomes apparent only in the last paragraphs, this is frequently the nature of his "trick" ending — the mood is not shock but sorrow; the payoff is not in some irrevocable destruction of this personality but in the reader's realization that even a decent individual must pay the price of ignorance.

Normally, del Rey even then leaves an opening for the protagonist to grow and go on in, and even his worst losers retrieve something — call it dignity.

The few exceptions to this general rule are noteworthy for two things; the willfully vicious thing they have done to merit their eventual punishment, and that punishment, which is nothing so simple as being shot in the gut with a blaster — when it arrives, it is gray, chilling spiritual desolation.

I believe the reason for all these qualities is a simple one. Del Rey's world runs deeper and clearer than most, following its

own course, suffering foolishness but not fools, ignoring the ignorant but not ignorance. In a society of other-directed people, twisting and turning toward today's chosen practicality, the truly proud and independent man is a marvel to behold. When he chooses to create, his creations cannot help but take on some of that attribute, and in turn give us our chance to assimilate as much of it as we can. At the very least, what his stories offer is a refreshing change. It is up to the reader to provide whatever it is that needs refreshing and is still not beyond it.

In this particular collection, the story which most clearly spells this out is "Return Engagement," a blend of science fiction and fantasy which not only takes mankind's present general desolation as its problem but then offers an explanation and a solution which is completely valid on its own terms. These three extremely difficult things are done with economy and a skill to which del Rey does not draw your attention. Others have tried to accomplish as much within a novel, and failed.

For contrast, there's "And it Comes Out Here," a lighthearted time-paradox story. As it happens, the hero's plans could not possibly have worked out if the future society for which he is in



part responsible were not truly, ultrahumanly decent.

"Instinct" is one of the finest robot stories ever written. It is the epitome of everything del Rey does in this sub-genre, from its characterizations of the robots' diverse and sophisticated personalities to his understanding of what a robot, even a highly educated and apparently fully human robot, must be and do.

But perhaps I'm leading you to think of this author as a sweet, kindly chap with a little twinkle in his eye and an attitude that stands four square with the traditions of hearth and home. That impression will be seriously undermined not only by the blurbs Ballantine has applied to this package but by such stories as "Seat of Judgment" and "Lady of Space," as well as by much in the remaining selections. The thing that makes his stories so good is the same thing that makes his public personality so striking that no editorial staff has been able to resist sketching it in their descriptive copy. He sees very few things the way most people do. He sees them clearly, and he says so. You will be amazed how deep these gentle stories cut. There is no writer in this field who is more steadfast in practicing the rule that fiction is first of all entertainment, nor one who believes more strongly

that turns of technique are to be learned for the purpose of clearing away all signs of technique between story and reader. There is plainly nothing in his code that says the result must be bland. This is a book you will not regret buying.

And now we are going to consider a book you should not buy. It is time we had an example which is made horrible not by the lack of intelligence but the lack of application; in short, a book with decent people in it, representing the work of some people I know are decent, which is nevertheless indecent.

Robert Silverberg is the self-contained, cerebral and charming man to whom the del Rey collection described above is dedicated. He knows the science-fiction field and a great many other things to exhaustion, and he writes and sells a minimum of fifty thousand words — call it the equivalent of a commercial novel — each week, using a platoon of pseudonyms who are the major factors in a great many different markets for commercial writing. He is in the business of giving value for money, and he is an outstanding success at that. Still quite young, he was a prominent fiction fan in the early 1950s and then turned to this professional field first before ex-

panding his career onward. He still appears in the magazines frequently enough to maintain the appearance of a full-time career. In actual fact, of course, every word he now sells here is an interruption in his main schedule, and in many senses a labor of love.

Chilton has now brought out a collection of his earliest stories under the title *To Worlds Beyond* (\$3.95) with a foreward by Isaac Asimov and a very good brief introduction by the author. (The book is coincidentally, dedicated to Lester and Evelyn del Rey.) There are nine stories altogether in this 170-page volume, all from the years 1956 through '59. Chilton, which includes many juveniles in its program, does not say that this is another one, but I think it's realistic to consider that these selections, four from *Imagination* and *Super-Science* with the remainder from *Astounding*, *Galaxy* and *Infinity*, have been chosen with an eye toward that market. The tone of the selling copy on the jacket flap is appropriately gee whiz.

Of the stories, "The Old Man" and "Misfit" are rather bad, and "Collecting Team" is not much better. As a class, they share the attribute of each being about one simple idea which gets very little in the way of development or — although two of these are

supposed to be "surprise" stories — suspense. Respectively they describe — but do not tell an adult enough about — a spaceship captain who is superannuated at the age of nineteen, a man who must find his wife on a high-gravity world whose acclimated humans despise him, and a zoo ship piloted by humans which finds itself trapped on a planet which turns out to be a zoo maintained by aliens. As a class, these stories end where the writers Silverberg was reading as a fan would have begun them.

"Double Dare" the *Galaxy* selection — "Certainty" and "Mind for Business", represent some rather good work in a direct line of descent from the gimmick-anecdotes *Astounding* has already enjoyed. As a class, these are stories which are difficult to do markedly well, but which by their nature cannot be raised beyond the level of anecdote.

Finally, we have "The Overlord's Thumb," "New Men For Mars" and "Ozymandas," in that rising order of adult quality. All of them represent some attempt to grapple with real problems. The first concerns itself with the day when an unwittingly guilty Earthman may stand accused in an alien court — an event which is bound to occur sooner or later — and we have a choice of pulling him out by force majeure or

letting him take his chances with a code of justice we do not subscribe to. Silverberg makes the humanistic choice — lets him be found guilty and take his punishment — but vitiates his own point by having the punishment turn out to be something the convict himself can overcome by physical force. Furthermore, the premise is not essentially science fictional; the locale is simply Hungary or East Germany written differently since the aliens are totally humanoid.

"New Men For Mars" is about two rival colonies on that planet. One of them, under official sponsorship, is a completely terraformed dome populated by educated and sophisticated people who cannot exist unprotected when away from it. The other, a private venture of which the official bodies are hostile, is nothing like as flossy and is populated almost exclusively by transplanted Andean tin miners who have little to recommend them except for their native ability to live in a thin, cold atmosphere. Silverberg demonstrates rather honestly and conclusively that education and admirable personalities can be left for later, and that even the fractional advantage of not having to run quite so fast for an air suit is the crucial one. I'm afraid he's right in postulating that the

people who are not most attractive to society on Earth will get all the subsidies for work on Mars, and that this will prove to be a serious error. But in this 1957 story, he takes too long to decide he's made his point; the reader is well ahead of him, especially since the story is written in the time-honored manner (with the protagonist *loving* the slick colony at once) which tells all of us who have read more than three pulp stories that something Will Happen to Change His Mind.

"Ozymandias" is a fair story, wry and convincing in its characterizations. An exploration team, half scientific and half military, finds a totally desolated but once civilized planet. On it, the scientists discover an intelligent robot who quickly learns their speech and is able to tell them the complete history of this otherwise bare desert world and the high-level culture whose home it was. The scientists, already irritated by their ship's military commander, keep their tremendous archeological discovery to themselves.

This piece of action, which is a moot likelihood in real life, has to be supported with exact characterization and motivation in any story that proposes to use it believably. Silverberg is not known for bothering very much

in precisely those areas of technique. But he does here, because he absolutely must, and proves that when he must, he can do it well. He does something of the same for the military people, who now discover Ozymandias the robot for themselves and seize him for their purposes, since the robot can also reel off the specs for all the super-weapons which wasted this world in the first place. But having gone that far, he ends with a cliché — having seized the robot and his information, the military will now go home and start the escalation of events which will inevitably destroy Earth as this planet was destroyed. Or so, at least, believe the scientists who have been our viewpoint characters all along, and who now slump into ineffectuality with a bitterness and a kind of damp resignation which seem repugnant to me as an adult and are not likely to do anything more than that for adolescents. In a way, it would be almost better if Silverberg had not bothered to do one part of this story so well. Well, no. He was right to do it — good work is never wasted, and is going to have its cumulative effect on a writer's later endeavors. But considering this particular story as a thing in itself, the immediate result is a heightening of disappointment.

This book is interesting because it represents precisely the kind of thing that happens when a publisher produces a book only because he wants to do a book. I find it impossible to believe he wanted to do this particular book. The tone of the jacket copy is adolescent; the Asimov introduction, on the other hand sounds like some of Isaac's marvelous party conversation, full of personal asides and bounce, utterly charming and, in this context, irrelevant. On the other hand, each story is preceded by a useful, restrained short and uneffusive blurb which serves to give pattern and cohesion to the selection of stories, which are very well balanced against each other. On the fourth hand, we are told *three* times (once in Asimov's introduction, twice by Chilton's blurb writers) that Silverberg's wife is beautiful. She is — in fact, she looks as if she had been painted by Degas — but this information is of no relevance to your reading of these stories, nor did we really need to know, *three* times, that she is an electronics engineer, especially since there is no specially detailed electronics in any of these stories.

Ultimately, a prize must go to the art director for producing a jacket so stark that he could rescue himself only by emphasizing the R in "worlds," thus in-

dicating only that he was unable to start over from scratch; to the assistant editor who put in a full and precise acknowledgement of previous copyright — in the place where he forgot to supply a table of contents (there is none, anywhere in the book); and to the jacket blurb writers, again, who were so strained for something to say that they felt moved to tell us Robert Silverberg is known as "Bob, to his science fiction fans around the world." With these advertisements for carelessness, schizophrenia and editorial boredom all over the book, who in the world can be expected to invest four dollars in its author's work?

Random House has a curious item, *The Cook*, which is a novel worth its \$4.95 and is by-lined Harry Kressing, which is pointedly acknowledged to be a pseudonym.

*The Cook* may be read as fantasy — it being carefully picked out in threads of allegory and symbolism — or as science fiction, if one allows that gastronomy is a science. My feeling is that it is—at least as must so as the brand of sociology which has made so many words in this field.

What the book really is is an exercise in the sort of writing

GALAXY BOOK SHELF

that has been on the ascendant since William Golding wrote *The Lord of The Flies* and Nigel Dennis did *Cards of Identity*. It is the new Gothic fantasy, drawing for its effects not on the superstitious lore of Transylvanian peasants but on the up-to-date explorations of the human psyche, which is of course another thing entirely.

*The Cook*, as a matter of fact, owes a great deal to the ten-year-old *Cards of Identity*. That book began with a mysterious but purposeful stranger's deliberately getting a stately old English family so confused as to its identity that it willynilly, step by step lost its hold on the real situation, became convinced that it was the domestic staff of the manor and thus permitted the stranger to move in as lord of the manor and celebrated his accession with an enormous levee at which the actual owners of course labored night and day as the servants of this cuckoo's invited sycophants. The book went on from there, working all this out in considerable filigree; *The Cook*, which is not as elaborate in any particular but is therefore more convincing, stops at that point, with the party going on *ad perpetuum* and Conrad, who began as the cadaverous new cook, grown monstrously fat and mar-

ned to the equally elephantine daughter of the house.

It may not seem possible to you — if you haven't read *Cards* — that such a story could be believed even for a minute. It can, as *The Cook* demonstrates. With steps so unobtrusive that he seems fairly sympathetic at first, Conrad Venn settles into the isolated rural community as the newly hired servant of one of the two leading families. With at first impressive and then terrifying competence he then becomes sole master of all he surveys simply by being more capable and less good-hearted than anyone else. Some of Kressing's best characters are the members of the misfortunate Hill family, who are childishly, shyly eager to win his favor and approval. If at any time they had remembered who they were supposed to be, or had felt at ease in the roles they were originally intended by birth and social pressure to play, Venn could not have done anything with them. But they are not at ease. They are conscious of an inferior sophistication, of their questionable but immutable drive to climb higher in social position even though they feel unworthy of the place they already occupy. The allegory is on a very real problem which England has been facing

since before World War II and which has become extremely important since then; its application is rather more broad than that.

In effect, Kressing may be said to have boiled *Cards of Identity* down to its essentials, making it unnecessary for you to dig out a copy of the earlier book unless you take enjoyment from graceful, elaborate writing. I do not see that he has contributed anything to the story, beyond a good and less fanciful prose and a few starkly individual scenes, not all of which hold up except as allegory. The scene in which Conrad drives away a rival cook, Brogg, is genuinely horripilating. But then you stop to wonder how a Brogg so resourceless came to be a Brogg so highly placed as to merit Conrad's attention . . . especially in view of the fact that Brogg almost literally gives Conrad the weapon and the instructions which enable Conrad to undo him. And Kressing goes on to throw in some pretty broad hints that Venn is Satan — which takes some of the push out of the story — and to sketch in a number of scenes he might have taken more time on. But if you like this kind of story at all, or if you have so far not had an opportunity to try one, you will not find a better in the immediate offering. — ALGIS BUDRYS



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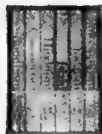
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# THE AGE OF THE PUSSYFOOT

by FREDERIK POHL

Illustrated by WOOD

*He sought a place in this wondrous  
world of tomorrow . . . and found it  
working for Man's deadliest enemy!*

## IX

**F**orrester could have carried on his new duties anywhere. But he didn't want to, he wanted to return to the nest; and there in his room he wrestled with the joymaker and the view-wall and emerged with some sort

of picture of what the Sirians were, and what they were doing on Earth.

As it turned out, they were neither tourists nor diplomats. They were prisoners.

Some thirty years earlier the first human vessels had made contact with the outposts of the



## WHAT HAS GONE BEFORE —

His name was Forrester, and he had been burned to death.

But not permanently . . . for the medical science of six centuries of progress had learned how to freeze a man at the instant of dying, hold him in the slow, dreamless calm of the liquid helium chambers . . . and bring him back to life with all his mortal wounds healed and his body as strong and healthy as it had ever been. He might die again — but the same science that had brought him back to life could do it again, and again.

He was, in fact, immortal. And so was all the world. Brave world! thought Forrester, amazed and delighted, and set out to enjoy his new life; and within hours of waking up, on his first day in the new life, he was killed again.

Why? It had been senseless — an unprovoked beating. He was put back together again and turned loose; but he was out of money, and needed a job; and the fine new world no longer looked so fine.

But Forrester had friends to help him — a girl, Adne; her two children; a few others. They showed him how to apply for a job; he did; he got it — and discovered that his new employer was an alien from a planet of the star Sirius, sworn enemy of everything on Earth!

Sirian civilization — a civilization much like human in the quality of its technology, quite inhuman in the appearance of its members and in their social organization. The human exploring party, investigating an extrasolar planet, had encountered a Sirian ship nosing about a ringlike structure orbiting that planet.

Forrester, having learned that much, had already discovered some enormous gaps in his knowledge. Why hadn't somebody said something to him about men exploring extrasolar space? Where was this system? And what was the orbital ring? It puzzled and confused Forrester; evidently it was not a Sirian

structure, and it certainly was not Man's. But he avoided the proliferation of questions and stuck to the straight line of the first encounter with the Sirians.

The Earth ship was loaded for bear. Having found bear, it pushed all the buttons. The commander may or may not have been given discretion about the chances of alien contact and what to do when and if it happened. He wasted no time in contemplating choices, though. Everything the Earth ship owned lashed out at the squat, uneven Sirian vessel — lasers and shells, rockets and energy-emitting decoys to confuse and disrupt its instruments. The Sirians

didn't have a chance. Bar a few who were found still alive in space tanks — their equivalent of suits — they all died with their ship.

The Earthmen brought them warily aboard, then turned tail and fled for home. (Years later a remote-operated probe cautiously returned to look at the scene. They discovered that even the wreckage of the Sirian ship was gone, apparently retrieved by Someone. Whereupon the probes fled too.)

Fourteen Sirians had survived the attack. Eleven of them were still alive and on Earth.

Forrester, watching the picture-story of the Sirians spread across his view-wall while the joymaker stolidly recited the facts of their exile, could not help a twinge of sympathy. Thirty years of imprisonment! They must be getting old now. Did they hope? Did they despair? Were their wives and kiddies waiting back in the nest, or hatching-pond, or burrow?

The joymaker did not say, it only said that the Sirians had been thoroughly studied, endlessly debated — and released. Released to house arrest.

The Parliament of Ridings had passed laws about the Sirians. First, it was from that moment cardinal policy to avoid contact with their home planet. It was

possible that the Sirians would not attack even if they discovered Earth — but it was certain that they wouldn't if they didn't. Second, the Sirians now in captivity could never go home. Third — Earth prepared for the attack they hoped would not come.

So the Sirians were spread across the face of the Earth, one to a city. They were provided with large subsidies, good living quarters, everything they could want except the freedom to leave and the company of their kind. Every one of them was monitored — not with a mere joymaker. Transponders linked to the central computing nets were surgically built into their very nervous systems. Their whereabouts was on record at every moment. They were informed as to the areas forbidden to them — rocket landing grounds, nuclear power stations, a dozen other classes of installations. If they ignored the warning, they were reminded. If they failed to heed the reminder, they got a searing jolt of pain to the central nervous system to emphasize it. If that did not stop them, or if for any reason their transponders lost contact with the central computer, they would be destroyed at once. Three of them already had been.

At that moment the mellow

chime sounded, the view-wall flickered and changed its picture and Forrester was face to face with his employer.

**I**t was just like the picture he had seen before. Maybe it was the same Sirian. But it was looking at him now, or seemed to be, though it was hard to tell with the dozens of tiny eyes that rimmed its upper parts, and it spoke to him.

"Your name," it said in hollow, unaccented English, "is Charles Dalglish Forrester and you work for me and you call me S Four."

It sounded like a robot talking. More like a robot than the joy-maker itself.

"Right, S Four," said Forrester.

"You tell me about yourself."

It sounded like a reasonable request. "All right, S Four. Where do you want me to begin?"

"You tell me about yourself." The tentacles were rippling slowly, the circlet of tiny eyes winking at random like the lights on a computer. He had been wrong about the sound of the voice, Forrester decided. It was more like a dubbed-in foreign film on the Late Show. Back when there were foreign films. And Late Shows.

"Well," said Forrester rumina-

tively, "I guess I can start with when I was born. It was the 19th of March, 1936. My father was an architect, but at that time he was working as a project supervisor for the W.P.A. My —"

"You will tell me about W.P. A.," interrupted the Sirian.

"It was a government agency designed to relieve unemployment during the depression. You see, at that time there were period cyclic imbalances in the economy —"

"You will not lecture me," interrupted the Sirian, "and will explain terms for which letters W.P.A. are function of entity."

Dashed, Forrester tried to put in concrete terms the business of the New Deal's work relief programs. Only concrete terms would do. The Sirian was distinctly not interested in Forrester's digressions into economic theory. Probably he liked his own theories better. But he seemed interested in, or at least did not interrupt, a couple of jokes about leaf-raking and falling down when someone kicked the broom a W.P.A. worker was leaning on. The Sirian listened impassively, the girdle of eyes twinkling, for half an hour by the clock; then said, cutting through Forrester's description of a high-school graduation, "You will tell me more at another time," and was gone.

And Forrester was well enough pleased. He had never talked to a Sirian before.

Although the children were romantically thrilled, Adne did not approve. Not in the least. "Dear Charles," she said reasonably, "They're the *enemy*. People will say you are doing an evil thing."

"If they're so dangerous, why aren't they in concentration camps?"

"Charles! You're acting kamikaze again!"

"Or why isn't there a law against working for them?"

She sighed and nibbled what looked like a candied violet, regarding him with fond concern. "Oh, Charles. Human society is not merely a matter of *law*. You have to remember *principle*. There are certain standards of what is good and what is bad, and civilized people comply with them."

Forrester grumbled. "Yes, I understand that. It's good when anybody jumps on me. It's bad when I try to do anything about it."

"Kamikaze, Charles! I'm *simply* trying to point out to you that Taiko—for instance—would pay you at least as much as this filthy Sirian for a socially *useful* job—"

"Sweat Taiko!" shouted For-

rester, making her laugh with his malaprop anger. "I'm going to do this by myself!"

So Adne left him there on friendly terms, but she left him nonetheless; had an engagement in connection with her employment, she said, and Forrester did not know enough about her job to question it. He hadn't found an opportunity to ask what her "crawling" date had been, nor did he see a chance to bring up her suggestion about picking a name. She volunteered nothing, and he was just as well pleased.

Besides, he wanted to talk more with the children

With their help he was learning more about the Sirian than the Sirian would be able to learn about him. The kids frothed with information. It wasn't difficult to master all the facts they had on tap, for there were not many real facts about Sirians to learn. All the hostages on Earth were of the same sex, for example, but there was a good deal of argument about what that sex was. Nor was their family structure at all clear. Whatever their relationships on the planet from which they came, none of them had ever given any signs of being particularly depressed over being separated from the near and dear. Forrester took the information in grudgingly; he could not help thinking there should have



been more of it. He said, "Do you mean to tell me that the only time we've ever seen them is this one time when we wiped out their exploring party?"

"Oh, no, Charles!" The boy was indulgent with him. "We long-range spied their home planet once, too. But that's dangerous. Anyway, that's what they say; so they stopped it. If it was up to me I would have kept it up."

"And like in the chromosphere of Mira Ceti," added the girl.

"The what?"

The boy chortled. "Oh, yeah. That was a fun one! We had it on our class evaluation trip."

"Sweat!" cried the girl excitedly. "Say! Maybe Forrester would like to go with us if we do it again. *I'd* like to!"

Forrester felt a sensation of committing himself to more than he liked. He said uncertainly, "Well, sure. But I don't have much time right now. I mean, these are my working hours—"

"Oh, sweat, Charles," said the boy impatiently, "it doesn't take *time*. I mean, you don't go anywhere in *space*. It's a construct."

"Only it was kind of real, too," added the girl.

"But it's all just tapes now," explained the boy helpfully.

"Show him!" crowed the girl excitedly. "Mira Ceti! Please, Tunt, you *promised!*"

The boy shrugged, cocked an eye thoughtfully at Forrester, then leaned forward. He spoke into his junior joymaker and touched a button on his teaching desk.

At once the cluttered children's room disappeared, and they were surrounded by a wall of hot, swirling gray and incandescent orange. It cleared . . .

And at once Forrester and the two children were seated in the bridge of a spaceship. The toys were gone, the furnishing replaced by bright metal instruments and flickering, whistling gauges. And outside crystal panels surged the devastating chromosphere of a sun.

Forrester shrank back instinctively from the heat before he realized that there was none. It was illusion. But it was perfect.

"By God!" he cried admiringly. "How does that work?"

"Sweat, I don't know," scoffed the boy. "That's ninth-phase stuff. Ask your joymaker."

"Well, machine? How about it?"

The calm voice of the joymaker replied at once, "The phenomenon you are currently inspecting, Man Forrester, is a photic projection on a vibratory curtain. An interference effect produces a virtual image on the

surface of an optical sphere with the nexus of yourself and your three companions as its geometric center. This particular construct is an edited and simplified reproduction of scansion of a Sirian exploration vessel in a stellar atmosphere, to wit—"

"That's enough," interrupted Forrester. "I liked the kid's answer better."

But the boy said tautly, "Knock it off, Charles. We're starting! See, there's this Sirian high-thermal scout vessel and we're about to run into it."

A harsh male voice rasped: "Tractor ship Gimmell! Your wingmate has an engine disfunction! Prepare to lock, grapple and evacuate crew!"

"Are!" cried the boy. "Start search procedures, Tunt! Keep a watch, Charles!" His hands flashed over the keyboard—it had not been there a moment before, but it was operative; when he energized a circuit, their make-believe "ship" responded. He put it through a turn; the "virtual" sun-ship heeled sharply and sped through fountains of flaming gas.

Forrester could not repress his admiration at the perfection of the illusion. Everything was there, everything but the heat and the feeling of motion—and gazing at the images around him, Forrester could almost feel the surge

and shudder of their ship as it responded to the boy at the controls. Clearly they were part of a squadron on some adventurous, unspecified mission. Forrester saw nothing that resembled a Sirian—saw nothing at all, in fact, but the serpents and coils of gas through which they hurtled. But he was conscious of illusory vessels around them. A spatter of command signals came through the speaker as other "ships" talked back and forth. A panel showed their position in plan and elevation as they swam through the stripped-atom gases of Mira Ceti's ocean of fire. Forrester ventured to say: "Uh, Tunt. What am I supposed to be doing again?"

"Just use your eyes!" the boy hissed, attention riveted to the controls. "Don't mix me up, man!" But his sister was shrieking:

"I see it! I see it, Tunt! Look over there!"

"Oh, sweat," he groaned in despair. "Will you ever learn to make a report?"

She gulped. "I mean, wingmate sighted, vector oh-seven-oh, I guess. Depression—um—not much."

"Prepare to grapple!" roared the boy.

Through the incandescent swirl a fat slug of a ship appeared, vanished and appeared

again. It was black against the blinding brilliance of its surroundings. Black on its metal skin, black in its ports, black even at the tail where a rocket exhaust discharged dark gases into the brightness around them. The rocket cut off as a labored voice gasped through the speaker: "Hurry it up, Gimmell! We can't hold out much longer!"

They jockeyed close to the stranded "ship", buffeted this way and that by the flaming gas. Forrester stared open-mouthed. There was the ship, derelict and helpless. And beyond it, swimming faintly toward them through the chromosphere, something that was bright even in this explosion of radiation, something that loomed enormous and fearsome . . .

"Holy God," he cried, "it's a Sirian!"

And the whole picture shivered and winked away.

They were back in the children's room. For a moment Forrester was almost blind; then his strained optic centers began to register again. He saw the view-walls, the furnishings, the children's familiar faces. The expedition was over.

"Fun?" demanded the girl, jumping up and down. "Wasn't it, Charles? Wasn't it fun?"

But her brother was staring disgustedly at a readout on his

desk. "Tunt," he grumbled, "you should know better. Don't you see the tally? We were late locking up. There was a crew of three there, and two of them are scored dead . . . and we never even got to see the Sirian at all."

"I'm sorry, Tunt. I'll look better next time," the little girl said repentantly.

"Oh, it's not you." He glared past her at Forrester and said bitterly, "They set the norms for a three-person mission. As if *he* was any help."

Thoughtfully Forrester picked up the mace of his joymaker, selected a button, pointed it at the base of his skull, just behind the ear, and squirted. He was not sure he had picked the right joy-juice for the occasion; what he wanted was something that would make him tranquil, happy and smart. What he got was more like a euphoriac, but it would serve.

He said humbly, "I'm sorry I messed it up for you."

"Not your fault. Should have known better than to take you, anyway."

"But I wish we'd seen the Sirian," said the little girl wistfully.

"I think I did. A big, bright ship? Coming toward us?"

The boy revived. "Really? Well, maybe that's not so bad, then. You hear that, monitor?"



He listened to a—to Forrester—in audible voice from his teaching machine, then grinned. "We got a tentative conditional," he said happily. "Take it again next week, Tunt. For record."

"Oh, wonderful!"

Forrester cleared his throat. "Would you mind telling me exactly what it was we just did?" he asked.

The boy put on his patient expression. "It was a simulated mission against the Sirian exploring party in the chomosphere of Mira Ceti. I thought you knew that. Basically a real observation, but with the contact between our ships and theirs variably emended."

"Oh. Uh-huh."

The boy looked quizzically at him. He said, "The thing is, Charles, we get graded on these simulations. But it's all right; it didn't hurt us."

"Sure." Forrester could feel the beginnings of an idea asserting themselves. No doubt it was the spray from the joymaker, but—"Could you do the same trick with some other things about the Sirians? So I could get a better look at them? Maybe the original encounter, for instance?"

"Neg." The boy glared at his sister. "It's Tunt's fault, of course. She cried when the Sirians got killed. We have to wait

to take the pre-briefing over when we're older."

The little girl hung her head. "I was sad," she said defensively. "But there's other things we can do, Charles. Would you like to see the coconut on the Moon?"

"The what?"

"Oh, sweat. We'll just show you." The boy scratched his ear thoughtfully, then spoke to his junior joymaker. The view-walls clouded once again.

"It's supposed to be another artifact like the one the Sirians were searching for in Mira Ceti's atmosphere," he said over his shoulder, manipulating his teaching machine as he spoke. "Don't know much about it, really. It's not Sirian. It's also not ours. Nobody knows whose they are, really, but there are lots of them around—and the Sirians don't seem to know any more about them than we do. They're old. And this is the nearest one."

The view-walls cleared to show the lunar Farside. They were near the terminator line, with crystalline white peaks and craters before them, the jet black of a lunar night to one side. They were looking down into the shallow cup of a crater where figures were moving.

"This is just tape," the boy said. "No participation. Just look as long's you want to."

There was a clump of pressure huts in the crater. Perhaps they were laboratories or housing for scientists, or for whoever it was that was studying the "artifact" in the center of the screen — or perhaps had been studying it once, and given it up.

It did indeed look like a coconut. As much as it looked like anything.

It was shaggy, and rather egg-shaped. Its tendrils of — whatever they were — were not organic, Forrester thought. At least they were almost glassy in their brightness, reflecting and refracting the sunlight in a spray of color. By the scale of the huts it appeared to be about the size of a locomotive.

"It's empty, Charles," volunteered the girl. "They all are."

"But what are they?"

The girl giggled. "If you find out, tell us. They'll make us twelfth-phase for sure!"

But the boy said kindly, "Now you know as much as anybody does."

"But the Sirians must —"

"Oh, no, Charles. The Sirians are late arrivals. Like us. And that thing's been there just the way it is now, for no less than a couple gigayears." He switched off the scene. "Well," he said brightly. "Anything else you want to know?"

There was indeed. But Forres-

ter had grasped the fact that the more he knew, the more he was going to realize how little that knowledge was.

Astonishingly enough, it had not really occurred to him before this that a lot of things had been happening to the human race while he was lying deep in the liquid-helium baths of the West Side Facility. It was like a story in a magazine. You turn a page. Ten years have passed; but you know perfectly well that they weren't *important*; because if they were, the author would have told you about them.

But far more than ten years had passed. And they were important, all right. And there was no Author to fill in the gaps in his knowledge.

## X

On the third day of his job Forrester had been six days out of the freezer. He felt as though it had been a million.

But he was learning. Yes, he told himself — gravely gratulatory — he was doing all his homework, and it was only a question of time until all answers were revealed to him and he took his proper place in this freemasonry of heroes.

Meanwhile working for the Sirian was not at all disagreeable. The social pressure against

his job came only from Adne, and he had seen very little of her since that first day. He missed her; but he had other things on his mind. The Sirian — it had agreed to allow Forrester to think of it as a male, although it did not concur the diagnosis and would not explain further — was curious, insatiable but patient. When Forrester could not answer questions it permitted him to take time to look them up. Its orientation, surprisingly enough, was all to the past. It volunteered an explanation — well, a sort of explanation. In its view, it said, the present state of any phenomenon was a mere obvious derivative of some prior state; and it was the prior states of mankind that it wanted to know about.

It crossed Forrester's mind that if he were a war captive on a planet of alien enemies, the sort of knowledge that he would try to acquire would have more to do with arms and defense strategies. But he was not a Sirian, and he had decided not to bother trying to think like one. That was obviously beyond his powers. So he answered questions about Madison Avenue ad agencies and the *angst* that surrounded a World Series, and every day called up his bank to verify that his day's salary had been deposited.

It had finally penetrated to Forrester that money was still money. His quarter of a million dollars would have bought him — and in fact, had bought him — something very like a quarter of a million dollars' worth of goods and services, even by 20th century standards. It was not the dollar that had been inflated. It was the standard of living.

There were so many things that a dollar could now buy . . . And he had been buying quantities of them.

He could even, he discovered, have managed to live out his life on that quarter of a million dollars — just as he could have in 1967, say — provided he had lived at a 1967 level. No robot servants. No extensive medical services — above all, no use of the freezer facilities and their concomitant organ banks, prostheses, antientropic chemical flushings and so forth. If he had eaten no costly custom-prepared foods, had not traveled, had acquired no expensive gadgets . . . if he had, to be exact, lived exactly the life of a 20th century peasant, he could have made it last.

But not now. It was gone now. All gone except for a few tens of thousands left in the account at the Nineteenth Chromatic, plus what the Sirian paid to his account every day. It was about enough to pay his standard joy-

maker fees for a couple of weeks, maybe. If he was careful.

Forrester was resigned to it, though. He didn't mind it particularly — at least, he didn't mind his bankruptcy, since it lay within his power to work and make more money than he had ever dreamed of anyway. What he minded very much was the fact that he had been a joke — him and his quarter of a million dollars. And he minded most of all the fact that Adne had shared in that joke.

Because dimly, like a faint, pre-dawn glow in the desert, he could see the foretaste of a time when Adne could be very important to him.

Was already very important to him, he thought wryly. At least in a potential sort of way. He wondered again what she had meant about that business of choosing a name . . . and why, he suddenly thought, she had not called him.

But what was important to him, Forrester realized, was not necessarily important to anyone else. For now, he was a sort of apprentice to life. For now, he would wait, and work, and learn. For now he would not push his luck.

Forrester had learned modesty, if he had learned nothing else.

At that point Forrester had not yet discovered that, in one parti-

cular and quite unpleasant way, he was on his way to becoming the most important man in the world.

What mostly confused Forrester about his Sirian employer was that the creature seemed preoccupied. Forrester even asked his joymaker about it.

"Can you clarify your question, Man Forrester? What is there about the behavior of Alphard Four Zero-zero Trimate which puzzles you?"

"Just call him 'the Sirian', will you? Anyway, he has a funny way of talking."

"Perhaps that lies in my computation, Man Forrester. The Sirian language is tenseless and quasi-Boolean. I have taken the liberty of translating it into approximately 20th-century English modes of speech, but if you wish I can give you a more liberal rendering, or —"

"No, it's not that. He seems to have something on his mind."

There was a pause of a second or two. Even Forrester knew enough to remark this occurrence; for the computer facilities to hesitate or search for an answer meant that the problem was something remarkable. But all the joymaker said was: "Can you give me an instance, Man Forrester?"

"Not really. Well, he has me doing some odd things. Is it right for him to want to hypnotise me?"

Pause again. Then the joymaker said, "I cannot say, Man Forrester. But I advise you to be cautious."

Well, cautious he was, Forrester reflected. But he was also puzzled.

The Sirian did not repeat its suggestion of hypnotizing Forrester — "to secure in depth referents, plus buried traumas of former time" — but it was hard to figure out. It capriciously had him talking about the 20th century at one time, explaining the Arian-Athanasian wars of two and a half millenia before at another. (But not until Forrester had begged time out to research the heresies involved in the distinction between the words "hommoousian" and "homoiousian" — without, however, really getting the problem straight.) It kindly volunteered to assume his joy-maker as part of his expenses. It refused to allow him to charge it for travel expenses on a trip to the deepest vaults of Shoggo, where he was looking up records of the abandoned pressure-dome settlements on Saturn. "Capricious" was the word.

It occurred to Forrester that the Sirian might simply be lonesome. But it rejected his offer

to come visit it in its quarters. And as far as he was able to tell it showed no interest in the fate of its dozen-odd compatriots also in exile on Earth.

"You explain common-law marriage." And gamely Forrester tried to describe to a Sirian the drives of sexual impulse and family needs which had brought about a formal institution to regularize irregular conduct. "There exist trading stamps!" boomed the hollow, empty voice; and Forrester did his best to clarify the complexities of retail supermarket sales. "You have or have not violated legislative compulsion programs," stated the Sirian; and that was the most prolonged session of all. Try as he would, Forrester could not seem to get across the idea of a personal ethic — of laws that one did not violate, because they were morally right, and laws that everyone violated if they possibly could, because they were morally irrelevant.

He found himself feeling sorry for the Sirian. Its homework was even more arduous than his own.

But Forrester's homework could not be neglected. He ordered his joymaker to display the records of the long-range reconnaissance of the Sirian planet.

He had been thinking of the Sirians as a paper tiger, but he

saw fangs. Englobed by fortress-es, with fast and mighty vessels of war flitting about like wasps, the whole Sirian system was a vast network of armament. There were a dozen planets in all, two of them in Trojan orbit with Sirius B, the rest normal satellites of the great white star. All were inhabited. All were defended.

Earth's reconnaissance drones had been lucky enough—or unlucky enough—to find themselves observing and taping what seemed to be war games. The Sirians took their war games seriously. Edited and compressed, they showed a waste of creature and armament which only a massive war effort could justify. A hundred of the great ships were damaged, some destroyed. A fleet of them converged on an icy satellite of one of the outlying planets . . . and the satellite was melted into glowing slag.

There was no more after that. Clearly the operators of the drones had felt that enough was enough. It was less dangerous to leave the Sirians unwatched than to run the risk of attracting attention with the drones.

Forrester did not offer again to visit the Sirian in his quarters.

On the seventh day of his new life, Forrester arose to the promptings of his bed, ordered

a standard low-cost breakfast (it was, as a matter of fact, far tastier than his hand-hewn specials), checked his messages and started to work.

With some pride in his expertise he commanded the joymaker to select and mark a course to the buried vastnesses of the American Documentation Institute. The green-glowing arrows sprang to life at his feet. He followed them out the door, into a sort of elevator cab (but it moved laterally as well as up and down), out the cab, in another building, through a foyer clattering with old-fashioned punch-card sorters, into a vault where his employer had shown a certain interest in some centuries-old records.

His joymaker said abruptly, "You will inform me about the term 'space race'."

Forrester took his eyes from the old microfilm viewer. "Hello, Sirian Four," he said. "I'm busy looking up the beginnings of the Ned Lud Society, as you asked me. It's pretty interesting, too. Did you know they used to break up computers and—"

"You will discontinue Ned Lud Society research and state motives which led two areas of this planet to compete in reaching the Moon."

"All right. In a minute. Just let me finish what I'm doing."

There was no answer. Forrester shrugged and returned to the viewer. The Luddites appeared to have taken themselves a great deal more seriously when they first started: where Taiko postured and coaxed, his predecessors had done the Carrie Nation bit with the axes, chopping up computing machines with the war-cry, "Men for men's jobs! Machines for bookkeeping!"

As he read he forgot about the call from his employer. Then—

"Man Forrester!" cried his joy-maker. "I have two urgent notices of intention for you!"

It was the master computing center this time, not the deep, remote, echoless voice of the Sirian. Forrester groaned. "Not again!"

"Heinzlichen Jura de Syrtis Major —"

"I knew it," Forrester muttered.

"—states that he has reactivated his hunting permit. You are notified, Man Forrester, so please be guided accordingly."

"I'm guided, I'm guided. What is the other one?"

"Man Forrester, it is from Alphard Four Zero-zero Trimate," said the joy-maker; then, unbending slightly, "or, as you call him, Sirian Four: A notice to terminate employment. Guarantees are met and notice paid. Reason: Failure to comply with

reasonable request of employer, to wit, research questions concerning early U.S. and U.S.S.R. space probe motivation."

Forrester squawked: "Wait a minute! That sounds like — you mean — hey! I'm fired!"

"Man Forrester," said the joy-maker, "that is correct. You are fired."

After the first shock had worn off, Forrester was not particularly sorry, although his feelings were hurt. He had thought he was doing as good a job as could be done. Considering the job. Considering the employer.

Nevertheless, it had had its disadvantages, including the barely polite remarks Adne had been passing about working for the enemy. So with a light heart Forrester dismissed the Sirian from his mind and informed the joy-maker he wanted another job.

Quite rapidly he had one: Standby machine monitor for the great sub-lake fusion generating station under Lake Michigan. It paid very well, and the work was easy.

It was not for twenty-four hours that Forrester discovered that the premium pay was due to the fact that at unpredictable intervals severe radiation damage was encountered. His predecessor in the job—in fact, all of his predecessors—were now

blocks of low-temperature matter in the great lakeside freezers, awaiting a discovery of a better technique for flushing the radioactive poisons out of their cells; and the joymaker candidly informed him that their probable wait for thawing and restoration, which depended on the pace at which certain basic biophysical discoveries were likely to be made, was estimated to be of the order of magnitude of two thousand years.

Forrester blew his top. "Thanks!" he grated. "I quit! What the devil do they need a human being down here for?"

"In the event of cybernetic failure," said the machine promptly, "an organic overseer may retain the potential of voice connection with the central computing facility, proving an emergency capability —"

"It was only a rhetorical question. Forget it. Say," said Forrester, punching the elevator button that would bring him up to the breather platform at the lake's surface and thence back to the city, "why didn't you tell me this job would kill me?"

"Man Forrester," said the machine gravely, "you did not ask me. Excuse me, Man Forrester, but you have summoned an elevator. Your relief is not due for three hours. You should not leave your station unattended."

"No, I shouldn't. But I'm going to."

"Man Forrester! I must warn you —"

"Look. If I read the plaque on the surface right, this particular installation has been in service for like a hundred and eighty years. I bet the cybernetic controls haven't failed once in all that time. Right?"

"You are quite correct, Man Forrester. Nevertheless —"

"Nevertheless my foot. I'm going." The elevator door opened; he entered: it closed behind him.

"Man Forrester! You are endangering —"

"Oh, shut up. There's no danger. Worst that would happen would be that it might stop working for a while. So power from the city would come from the other generators until it got fixed, right?"

"Yes, Man Forrester, but the danger —"

"You argue too much. Over and out," said Forrester. "Oh, except one thing. Find me another job."

But the joymaker didn't.

Time passed, and it still didn't. It didn't speak to him at all.

Back in his room, Forrester demanded of the joymaker: "Come on, what's the matter? You computers don't have hu-



man emotions, do you? If I hurt your feelings I'm sorry."

But there was no answer. The joymaker did not speak. The view-walls would not light up. The dinner he ordered did not appear.

The room was dead.

Forrester conquered his pride and went to Adne Bensen's apartment. She was not there, but the children let him in. He said, "Kids, I've got a problem. I seem to have blown a fuse or something in my joymaker."

They were staring at him, bemused. After a moment Forrester realized he had blundered in on something. "What is it, Tunt? Another club meeting? How about it, Mim?"

They burst out laughing. Forrester said angrily, "All right. I didn't come here for laughs, but what's the joke?"

"You called me Tunt!" the boy laughed.

His sister giggled with him. "And that's not the worst, Tunt. He called me Mim! Charles, don't you know *anything*?"

"I know I'm in trouble," Forrester said stiffly. "My joymaker doesn't work any more."

Now their stares were round-eyed and open-mouthed. "Oh, Charles!" Obviously the magnitude of the catastrophe had overwhelmed their defenses. Whatever it was that had been occu-

pying their minds when he came in, they were giving him their whole attention now.

He said uncomfortably, "So what I want to know is, what went wrong?"

"Find out!" cried Mim. "Hurry, Tunt! Poor Charles!" She gazed at him with compassion and horror, as at a leper.

The boy knew what practical steps to take — at least, he knew enough to be able to find out what Forrester had done wrong. Through his pedagogical joymaker the boy queried the central computing facilities, listened with eyes wide to the inaudible response and turned to stare again at Forrester.

"Charles! Great sweat! You quit your job without notice!"

"Well, sure I did," said Forrester. He shifted uneasily in his seat.

"All right," he said, to break the silence. "I did the wrong thing huh? I guess I was hasty."

"Hasty!"

"Stupid," Forrester amended. "I'm sorry."

"Sorry!"

"If you just keep repeating everything I say," said Forrester, "you might drive me crazy, but you won't be exactly helping me. I goofed. All right. I admit it."

The boy said, "Yes, Charles,

but didn't you know you forfeited your salary? And you didn't have anything much else, you know. A couple K-bucks sequestered for the freezers, but not much loose cash. And so you're —" The boy hesitated, forming the words with his lips. "You're broke," he whispered.

If those were not the most frightening words Forrester had ever heard, they certainly were well up in the running. Broke? In this age of incredible plenty and high-velocity spending? He might as well be dead again. He sank back in his chair and the little girl sprang helpfully forward and ordered him a drink. Forrester took a grateful swallow and waited for it to hit him.

It didn't hit him. It was, of course, the best the girl could get for him on her own joymaker, and it had about as much kick as lemon pop.

He put it down carefully and said: "See if I've got this straight. I didn't pay my bills, so they turned off the joymaker. Right?"

"Well, I guess you could say that."

"All right." Forrester nodded. "So the first thing I have to do is reestablish my credit. Get some money."

"Right, Charles!" cried the girl. "That'll fix everything up!"

"So how do I do that?"

The two children looked at each other helplessly.

"Isn't there anything I can do?"

"Well, sure, Charles. Sweat, there's got to be! Get another job, I guess."

"But the joymaker wouldn't get me one."

"Sweat!" the boy gazed thoughtfully at his joymaker, picked it up, shook it, then put it down again. "That's bad. Maybe when Mim comes home she can help you."

"Really? Do you think she'll help?"

"Well, no. I mean, I don't think she'd know how."

"Then what do I do?"

The boy looked worried and a little scared. Forrester was pretty sure he looked the same way himself. Certainly that was how he felt.

Of course, he told himself, Hara might help him once more; certainly he'd had the practice. Or Taiko might be sportsman enough to get over his snub and reopen the invitation to work for the Luddites.

But he was pretty sure that neither of these possibilities represented any very hopeful facts.

The little girl wandered thoughtfully away, not looking at Forrester, and began muttering into her joymaker — back to the



game he had interrupted, Forrester thought with totally unjustified bitterness. He knew it was unjustified. These **were** only children, and he had no right to expect them to handle adult problems that at least one adult — himself — couldn't handle at all. The boy said suddenly, "Oh, one other thing, Charles. Mim says Heinzie's out after you again."

"Don't I know it." But it didn't seem much of a threat, compared with the disaster of insolvency.

"Well, you see, you've got a problem there," the boy said. "If you don't have your joymaker you won't have any warning when he's around. And also there's something about the DR equipment you might not know. You have to have *some* credit rating or they won't freeze you at all if you're killed. You know. There's always the chance that you'll do something that annuls the bond so Heinzie, or whoever, might protest payment — then they'd be in trouble. I mean, they don't want to get stuck with a stiff that can't pay up."

"I appreciate their difficulty."

"I just thought you'd like to know."

"Oh, you were right." Forrester's glance wandered. "Mim — whatever your name is. You! What are you doing?"

The girl looked up from her joymaker, her face flushed with excitement. "Me, Charles?"

"Yeah. Didn't I hear you mention my name just now?"

"Sure, Charles. I was proposing you for membership in our club. You know, we told you about it."

"Nice of you," said Forrester bitterly. "Has it got a dining room?"

"Oh, it's not that kind of a club, Charles. You don't understand. The club will *help* you. Already they've made a suggestion."

He looked skeptical. "Is that going to help?"

"Sweat, yes! Listen. Tars Tarkas just said: 'Let him seek in the dead sea bottoms and the ancient cities. Let him join the haunted hosts of old Jasoom.'"

Forrester puzzled over the message drearily. "It doesn't mean anything to me," he said.

"Of course it does! Clear as the crawlers on the Farside coconut, don't you see? He *thinks* you ought to hide out with the Forgotten Men!"

## XI

**I**t was only ten minutes walking from the children's home to the great under-building plazas and warrens where the Forgotten Men lived. But Forrester had no

guide this time, nor was there a joymaker to display green arrows to guide him, and it took him an hour. He dodged across an avenue of grass between roaring hovercraft, his life in his hands, and emerged under a hundred-story tower where a man came humbly toward him. He looked vaguely familiar.

"Stranger," the man said, softly pleading, "Ah've had a turrible lahf. It all started when the mahns closed and my wahf Murry got sick —"

"Buddy," said Forrester, "have you got a wrong number."

The man stepped back a pace and looked him up and down. He was tall, lean and dark, his face patient and intelligent. "Aren't you the fella Ah pan-handled with those two little kids?" he said accusingly. "Gave me fifty bucks, Ah think."

"You remember good. But that was when I had money; now I'm broke." Forrester looked around at the tall buildings and the greensward. They did not seem hospitable. "I'd be obliged to you," he added, "if you'd tell me where I can sleep tonight."

The man glanced warily around, as if suspicious of some kind of a trick, then grinned and stuck his hand out. "Welcome to the club," he said. "Name's Whitlow. Jurry Whitlow. What happened?"

"I got fired," said Forrester.

Jerry Whitlow commiserated, "Could happen to anybody, Ah guess. You know, Ah noticed you didn't have a joymaker, but Ah didn't think much about it. Figured, sweat, he's just a damn greenhorn, prob'ly forgot to take it with him. But you got to get yourself one raht away."

"Why?"

"Whah Sweat, man! Don't you know you're fur game for anybody on the hunt? They come down here, take one look around and they see you're busted — hell, man, you wouldn't last out the day." He unclipped his own joymaker — or what Forrester had taken to be a joymaker — and proudly handed it over. "Fake, see? But it looks lahk the real thing. Fool anybody. Fooled you, Ah bet."

It had, as a matter of fact. But actually, Forrester saw with surprise, it wouldn't fool anyone at all, not at close range. It was far too light to be a joymaker, apparently whittled out of some organic plastic and painted in the patterns of a joymaker. "Of course, it don't work." Whitlow grinned. "But on the other hand Ah don't have to pay rent on it. Keeps 'em off pretty good. Didn't have that, one of these perverts that get they kicks from total death'd come down here and tag me the first thing."

Gently he pulled it out of Forrester's hand and looked at him calculatingly. "Now, you got to get one just lahk it and, damn, you hit lucky first tahn. Theah's a fellow two houses over makes them to sell. Friend o' mahn. Ah bet he'll give you one for — hell! Maybe little as a hundred dollars!" Forrester started to open his mouth. "Maybe even eighty! . . . Seventy-fahv?"

"Whit," said Forrester simply, "I haven't got a dime."

"Sweat!" Whitlow was awed. Then he shrugged. "Well, hell, Ah guess we can't let you get killed for a lousy fifteen bucks. Ah'll get you fixed up on spec."

"Fifteen?"

Whitlow grinned. "That's without mah commission. Come on with me, boy. You got some ropes to learn!"

The Forgotten Men lived on the castoffs of the great world overhead, but it did not seem to Forrester that they lived badly. Jerry Whitlow was not fat, but he was obviously not starving, either. His clothes were clean and in good repair, his attitude relaxed. Why, thought Forrester, it might even turn out that I'll like it here, once I learn my way around . . .

Whitlow was a first-rate teacher, even though he never stopped talking. He conducted Forrester

through under-building mazes and footbridges Forrester had not even seen, his mouth going all the while. Mostly it was the story of his life:

"—laid off at the mahns when Ah was sixteen. Out of work, Chuck, and me with a family to support. Well, we made out, kahnd of, until mah wahf Murry got sick and we had to go on the relief. So a gov-ment man came around and put me on the Aydult Retraining and gave me tests and, Chrahst, Chuck, you know Ah scored so hah Ah just about broke the scales. So then Ah went back to school and—"

He stopped and glanced apprehensively overhead. They were between buildings, under a tiny square of open sky. He grabbed Forrester and dragged him swiftly back into the cellar where the joymaker-maker had kept his shop.

"Watch out!" he whispered fiercely. "They's a reporter up there!"

The word meant nothing to Forrester, but the tone carried the message. He ran one way, Whitlow the other. The joymaker's shop had been in a sort of vermiform appendix to the plumbing of an apartment-complex, where some installation had been designed into the plans, was outmoded, removed — and the space left vacant. The little man

who sold the joymakers occupied a sort of triplex apartment — three rooms on three levels — and out of it and around it ran, for some reason, a net of empty four-foot tunnels. Down one of them Whitlow fled. Down another ran Forrester.

It was dark. The footing was uneven. But Forrester hurried down it, stooped over to avoid banging his head, until the blackness was total and he fell to the rough floor, gasping.

He still did not know what he had been running from, but Whitlow's fear was contagious. And it reawakened a hundred old pains; until this moment he had almost forgotten the beating he had taken the first day out of the freezer, but the exertion made every dwindling ache start up again.

He had now been a Forgotten Man for exactly two hours.

Time passed, and the silence was as total as the darkness. Whatever it was that Whitlow had feared, it did not seem to be pursuing here. It would take a human stoat to pursue a human rabbit in this warren, he thought; and in the darkness maybe even the rabbit would develop claws. It had been bad enough when all he had to fear was the crazy Martian. Now . . .

He sighed, and turned over on the rough, cast-stone floor.

He wondered wistfully what had become of all the furnishings and gadgets he had bought so recklessly for the apartment he no longer owned. Shouldn't there be some sort of trade-in allowance?

But if there was, he did not have the skill to claim it. Nor did he own a working joymaker to help him with instructions. He wondered if Hara would help him out at this last juncture, and resolved to go looking for the doctor. After all, it was in a way Hara's responsibility that he was in this predicament . . .

"No," said Forrester in the darkness, aloud and very clearly.

It wasn't Hara's responsibility at all.

It was his own.

If there was one thing that he had learned in his two hours as a Forgotten Man, it was that there were no responsibilities any more that were not his own. This was not a world where a protective state provided for its people.

It was a world of the individual; he was the captain of his fate, the master of his soul —

And the prisoner of his failings.

By the time he heard Whitlow cautiously calling his name, Forrester had come to terms with the fact that he was all alone in a cold and uncaring world.

Cautiously they tiptoed out of the pipes, across a hoverway and under a huge building that was supported on a thousand elliptical pillars, set in beds of grass. What light kept the grass growing came from concealed fixtures in the ten acres of roof over their heads.

Whitlow, regaining the appearance of confidence, led the way to one particular pillar that held a door, marked in glittering red letters: *Emergency Exit*. He pushed it open, shoved Forrester inside and closed it behind them.

"Whew," he said cheerfully. "That was close, but we're all raht now. You beginning to get hungry?"

Forrester had been about to ask questions, but that totally diverted his attention. "Yes?"

Whitlow grinned. "Figured," he said. "Well, Ah've got just the thing for you, prob'ly. Ah've got a steady clahent in this building, fellow who used to work with me at the Labs, back before. He's on diet programming now, see, and he always manages to slip me something out of the expurimental allowance. So let's see —"

He rummaged in a cupboard, and emerged with a pair of thermal-covered hot dishes. They opened to a touch and displayed a steaming, fragrant dinner for two. "Damn, he done better than ever! Looks lahk smoked oysters

Milanese! Sink your teeth in this, Chuck. Ah guarantee you won't do better at the Senate of the Twelve Apostles!"

While he wolfed down the food, Forrester glanced about him to discover what sort of place he was in. It seemed to be an air-raid access to the underground park from the building above, no longer used because since the beginning of the Sirian threat complete new facilities had been excavated at the five-hundred-foot subterranean level. But this little forgotten vestige of a completely stocked shelter remained, and as no one else had any use for it Whitlow had taken it for his own. It was temperature controlled; it had lights and plumbing; and, as Forrester had already seen, it was provided with food storage facilities. All Whitlow had to do was furnish the food. Forrester leaned back, relaxed, trying to summon up the energy to eat a chocolate mousse and half-listening to Whitlow's stream of talk: "—so then when Ah got out of M. Ah. T. they weren't vurry many jobs open for coal-mahning engineers, of course. So Ah went back and took mah master's in solid-state electornics. Then Bell Labs sent they recruiter up to scout our prospects and he made me this offer, and Ah went into the Labs at nahn thousand to start. Sweat,



man, things looked *good*. Murry was puttin' on weight and the kids were fahn. But Ah'd had this little cough for some tahm, and —"

"Whit," said Forrester, "hold off on that a minute, will you? I want to ask you something. Why did we hide from that reporter?"

Whitlow looked startled. "Ah'm sorry," he apologized after a minute. "Ah keep forgetting what a greenhorn you are. You don't know about these reporters."

"No, I don't."

"Well, all you have to know is seeing one of them's *poison*. Whah, that's lahk a vulture hovering over a hill. You just know they's going to be a corpse down below. See, they've got this Freedom of the Press thing, so when anybody takes out a killing lah-cense he got to tell the reporters raht away. And he's got to fahl a complete plan of action, see, so the reporters can be raht there when the blood starts flahing, because they tape it all and they put it on the view-walls. Specially if the killer's in one of the tournaments. Fella from the National Open was here last week and, God, they was reporters hanging out of every cloud —"

"I think I understand," said Forrester. "You mean if you can keep out of the way of the reporters, you can probably keep

out of the way of the assassins, too."

"Stands to reason, don't it?"

"I don't know what stands to reason," Forrester said humbly. He was beginning to wish he had not been so quick to follow the advice of Adne's children, so reluctant to wait and expose himself to more of Adne's gentle scorn. He felt a quick surge of anger.

How dare the world treat *his* life so lightly!

But if it had not been for this world he would not have a life at all; would have stayed dead with a lungful of smoke and fire, centuries before, his body now no more than a soft place in the ground. He leaned back and let himself be lulled by Whitlow's continuing story of his own adventures:

"—so then Ah went to the comp'ny doctor and he told me Ah had it, all raht. The Big C. Well! Scared! But we had this comp'ny freezer plan at the Labs and Ah reported in to the medics. 'Sheeoot,' they said. 'Lung cancer, hey? Well, you lay raht down here and we'll freeze your bones —"

Relaxing, half listening, Forrester found himself getting drowsy. It had been a very strange day, he thought; but then he stopped thinking and fell asleep.

**I**n order to live successfully as a panhandler, you had to exercise special care in picking your "clients", Whitlow said. The worst thing you could do was guess wrong. There was always the chance you might sidle up to somebody and hit him for a touch — and then find out that he was some jet-set happy-boy looking for an economical murder to commit, one that might get him out of the problem of paying for the victim's repairs and one with double thrills, since there was always the chance that the victim would stay dead.

To avoid that you had to study each prospective mark carefully. No one came down here on business. The best ones were the rubberneck tourists. They usually came in pairs; and of any two, the one who was being shown around could safely be figured for a greenhorn — himself too fresh out of the freezers, or back from the star-ways, to be eager for murder as yet. The problem there was to make an accurate assessment of the one who was doing the showing. "That's whah Ah picked you, Chuck. Ah wasn't worried about the little boy. Though you can be vurry surprised."

And of course, everything they did was more or less illegal, so you had to watch out for the coppers.

The coppers would not trouble you unless they saw you actually breaking the law or unless you were wanted for something. Then they would trouble you very much indeed. Forrester's first contact with one of the coppers came as he was on the point of bracing a woman alone, Whitlow hiding behind a flowering lilac bush and coaching him in whispers. "See thur, Chuck, what she did? Threw away a cigarette butt. Well, that's ten to one she's Nahnteen Eighty or earlier, so go get 'er, boy!" But Forrester had taken no more than a single step before Whitlow's piercing whistle stopped him: "*Copper!*"

The copper was seven feet tall, uniformed in blue, swinging what looked like a nightstick but was not. Forrester had been warned: It was a sort of joymaker, full of anesthetic sprays and projectile weapons. And it had seen him.

It strolled right up to them, swinging the stick. It stopped and looked Whitlow in the eyes, right through the lilac blooms. "Good morning, Man Whitlow," it said courteously and moved on to Forrester. It stared silently into his eyes. Then: "Nice day, Man Forrester," it said, and moved away.

"How'd he know?" gasped Forrester.

"Retina pattern. Don't worry about it; if he wanted you for

anything he'd have you by now. Just give him a minute to get out of saht."

The woman prospect was gone then. But there were plenty of others.

Keeping out of the way of coppers, trying to learn Whitlow's skills at estimating the potentials of a mark, Forrester found that the time passed. Nor was it the most disagreeable way he had spent a day. The weather was warm and dry, the growing plants were scented, the people he hit up were no worse than the average run. Forrester took five dollars from a pretty girl in a sort of mirror-bright bikini, fifty from a man who had brought his pet animal—it was a little silk-furred monkey—down to the under-building park to run free, and seemed to accept Forrester's touch as a form of rent for the use of the premises. Forrester paid back Whitlow's outlay for the fake joymaker and found himself with cash money in his pocket. As he could see no particular need for spending much of it, he began to feel solvent again.

Then Whitlow's hawk eyes brightened and he whispered tautly: "Eeow! Look over thur, will you? We've got ourselves a lahv one now!"

On the fringe of a bed of tall gladioli a man had stepped out

of a hovercar and dismissed it. He seemed young, although you couldn't really tell. He moved idly across the grass, like a sight-seer. His gait was peculiar, and he wore an expression of grave joy as he minced toward them.

"Look how he walks!" exulted Whitlow.

"I am looking. What about it?"

"Whah, Chuck, he's out of low-gee! Thur's a fella just back from a long trip if Ah ever saw one, and prob'ly loaded with pay. Sic 'im!"

Forrester accepted Whitlow's diagnosis unquestioningly. He marched up to the spaceman and said clearly: "My name is Charles D. Forrester, and due to my ignorance of the customs of this time I've lost all my money and have no work. If you could possibly spare me some cash I would be deeply indebted to you."

Whitlow appeared magically at his elbow. "That goes for me too, boss," he said sorrowfully. "We both in pretty bad trouble. If you could be kahnd enough to help us now we'd be eternally grateful."

The man stopped, his hands in his pockets, neither surprised nor disturbed. He turned to face them with grave interest. "Sorry to hear that, gentlemen," he said. "What seems to be your problem, sir?"

"Mahn? Well, it's just about

lahk Forrester here. Mah name's Whitlow, Jury Whitlow. It starts way back when Ah was first-born, working in the mahns in West Virginia. They closed down, and —"

The spaceman was not only polite but patient. He listened attentively through all of Whitlow's long story, and to as much of Forrester's as Forrester thought worth telling. He commiserated with them, wrote their names down and promised to look for them again if he ever came back this way. He was, in short, an ideal prospect—not only a spaceman, but one of the rotating crews who manned the right-angle communications satellites that whirled out around the sun at ninety degrees to the ecliptic, furnishing interference-free radio relay facilities for the whole solar system. The job paid well, but that was only part of it. Because of the energy budget for matching orbits with the right-angle satellites, the crews were relieved only at six-month intervals, and came back with a fortune in their pockets and a mad hunger for company; and Whitlow and Forrester walked away from him with two thousand dollars apiece.

That night they ate their dinner in a restaurant. Over Whitlow's protests Forrester insisted on standing treat.

The restaurant was a hangout for Forgotten Men—and Forgotten Women. It was something like a private home, something like an automat. You had full joymaker service in it, but in order to make it work you had to feed money into a slot. The prices caused Forrester's scalp to prickle, but he reassured himself that he was just learning the ropes and experience was worth paying for; so at Whitlow's suggestion they started with a squirt of joy apiece (fifty dollars a shot), then cocktails (forty), then a clear, filling soup (twenty-five), then more drinks, and about then Forrester began to lose count. He remembered something that looked like meat but wasn't—it seemed to be coated with a sort of vanilla fudge, though it was bloody inside—and then they began drinking in earnest.

They were not alone. The place was crowded. Whitlow seemed to know everyone there, an assembly that hailed from seven continents, six centuries and one or two extraterrestrial planets and moons.

There was a huge red-faced man named Kevin O'Rourke na Solis Lacis who gave Forrester a shock until they exchanged names, for he remembered Heinzie the Assassin. The reason was good, when Forrester found it

out: They were both Martians. O'Rourke, however, was a poet. As a matter of principle he refused to accept the bribes of what he called the iron-headed state. Probing, Forrester discovered that he was talking about foundation grants, which were available to poets in almost any quantity; but O'Rourke spurned them all. He had been briefly involved with the Ned Lud Society — but they were as bad as the iron-heads, he declared. All Earth was a disaster area. Let the Sirians take it away! "So why don't you go back to Mars?" Forrester inquired, politely enough; but the Martian took it as an insult, glowered and lumbered away across the room.

"Don' worry 'bout heem," said the pretty little dark girl who had somehow come to be leaning against Forrester's shoulder, helping him drink his drink. "He be back. *Certainement.*"

There was a certain United Nations quality to the gathering, Forrester was discovering. Apart from a few odd-balls like the Martian poet, the bulk of the Forgotten Men seemed to come from nearly his own time. Had the hardest time fitting in, he supposed — and the hardest time earning money.

But it was not always that. The tiny dark girl, for instance, had originally been a ballet

dancer from Czechoslovakia, shot as a Chinese Bolshevik counter-revolutionary in 1991, frozen at great peril by the Khrushchevite underground, revived, killed seven times since in one way or another and revived each time. Her reasons for hiding out with the Forgotten Men had nothing to do with money — she was loaded, Whitlow whispered, had made a collection of gold and gems from admirers in a dozen countries over the centuries, and owned them with their pyramid-ing value now. But one of her assassinations had produced some cell changes in the brain, and now she awoke each time convinced that Stalinist agents lurked abroad, waiting for her. She did not exactly fear them. She objected to the idea of being killed somewhat as Forrester, in the old days, had objected to going to the dentist: You didn't really worry about it, but you were pretty sure it would be unpleasant. As someone who had seen each of seven centuries, Forrester found her fascinating — and she was beautiful as well. But she quickly became so drunk her reminiscences stopped making sense.

He got up for another drink and found himself lurching slightly. Only slightly, he was sure; but somehow when he got the drink it spilled all over a

lean, old, nearly bald man who grinned and nodded and said, "Tenga dura, signore! E preciso!"

"You're right," said Forrester, and sat down beside him. Whitlow had pointed him out as they entered, as a sort of curiosity; he had actually been born before Forrester himself. He had been a hundred and seven years old when, in 1988, he had died of an embolism. The embolism could have been repaired at once, but the ravages of age could not. Not then. After six centuries in the dreamless liquid-helium sleep his original stake had multiplied to the point where the trustees of the freezer had decided to revive him; but there had been only money enough to give him operational youth. Not much had been done cosmetically; and it had taken everything he had. "I bet you've had an interesting life," Forrester told him solemnly, finishing what remained in his glass.

The man gave him a grave nod. "Signore," he said, "*durante la vita mia prima del morte, era un uomo grande! Nel tempo del Duce — ah! Un maggiore del esercito, io, e dappertutto le donne non mi dispiace!*"

Whitlow patted the old man on the shoulder and led Forrester away. "Fore-brain damage," he whispered.

"But he was talking in Italian."

"Sure, Chuck. He can't learn raht, that's what he's doing here. You know, they ain't many jobs for a fella that can't talk lahk the rest of us."

The Martian lurched past them, his head twisted sidewise toward them. Whether he had been listening or not Forrester could not say, but he was declaiming: "Talk like de rest. Live like de rest. Life for de state for de state knows what's best."

The whole party was coming to life, thought Forrester, flushed and happy. A small man in a green ruff—it seemed to be an imitation of the Sirian coloration—cried: "And what's best? Adolf Berle asked it half a millenium ago: 'What does a corporation want?' And the state has become a corporation!"

The ballet dancer hiccoughed and opened glazed and angry eyes. "Stalinist!" she hissed, and returned to sleep; and Forrester dug deep for hundred-dollar bills, and fed them to the joy-maker slots for more drinks all around.

Forrester was perfectly aware that he was rapidly depleting his last thousand dollars. In a way, it pleased him. He was drunk enough, euphoric enough, to let tomorrow face tomorrow's

fears. However badly the next day began, it could not be worse than this one had been. He saw advantages even in being a Forgotten Man: You could spend yourself into pennilessness, but not into bankruptcy; you could never go into debt, since you had no credit to begin with. Wise Tars Tarkas! Excellent kids, to have found him such fine advice! "Eat!" he cried, shaking off Whitlow's cautionary whisper. "Drink! Be merry! For tomorrow we die, again!"

"*Domani morire!*" shrilled the old Italian, uptilting his glass of heaven-knows-how-costly grappa that Forrester had provided for him, and Forrester returned the toast.

"Listen, Chuck," said Whitlow uneasily. "You better take it slow. We don't get a mark lahk that space fella every day."

"Whit, shut up. Don't be a grandma, will you?"

"Well, it's your money. But don't blame me if you're broke again tomorrow."

Forrester smiled and said clearly, "You make me sick."

"Now, cut it out raht there!" blazed Whitlow. "Whur'd you be if it wasn't for me? God damn, Ah don't have to take this kind of —"

But the Martian with the Irish name interrupted them. "Hey, you fellows! Dat's enough, dere.

You got to buy drinks yet." As Whitlow cooled off Forrester turned to inspect him; something had been on his mind.

"You," he said. "How come you talk like that?"

"Like what, 'like dat'? You tink dere's something funny about de way I talk?"

"Yeah, matter of fact. Why?"

But something had occurred to the Martian. He snapped his fingers. "Wait a minute! Forrester, is dat what you said your name was?"

"That's right. But we're talking about you —"

"You should learn not to interrupt dat way," reproved Kevin O'Rourke na Solic Lacis. "What I want to tell you is dis. Dere's a Sirian been around looking for you."

"Sirian? One of the green fellows?" Fuzzily Forrester tried to concentrate, but it was not much fun. "You mean S Four?"

"How de hell would I know his number? He came around in one of dem pressure-cloaks, but I could tell he was a Sirian. I saw plenty of dem."

"Probably wants to sue me for breach of contract," Forrester said bitterly. "He's welcome; there's plenty of others."

"No, I don't tink so, because —"

"Cut it out," interrupted Forrester. "You know, I hate the

way you Martians keep changing the subject. What I want to know is why you all talk like that. This other one that wants to kill me, he had the same Kraut accent, but in his case it figured. But you talk the same way and you're Irish, right?"

Kevin O'Rourke stared at him disapprovingly. "Forrester, you're drunk. What de hell's 'Irish'?"

**H**ow long the party lasted Forrester did not know. He remembered a long harangue in which the drunken ballet dancer was trying to explain to him that the accent was Martian, not German; something to do with 600-millibar oxy-helium air, which got them out of the habit of hearing certain frequencies. He had a clear memory of reaching into his pocket one time and coming up empty; and a fuzzy, frightening recollection of something bad that had happened.

But it was all hazy and distant, and it came back to him only in random patches.

What he knew for sure was that when he woke up the next morning he was back in the rough-hewn tunnel next to the joymaker shop. How he had gotten there he had no idea. And he was alone.

Except, that is, for the granddaddy of all hangovers.

He dimly remembered that

Whitlow had warned him about that, too. There were no automatic monitoring devices on the public joymakers, Whitlow had said. He would have to decide for himself when he had enough, because the joymaker would not stop service at the point of no return — not as long as the money held out.

Apparently it had held out too long.

He shook his head miserably. The movement sent cascades of pain down the back of his skull.

Something bad had happened. He tried half-heartedly to recall it, but all that would come to his memory was a mosaic of mass terror. Something had broken up the party with drunken men and women racing around in terror, even the Italian and the ballerina rousing themselves enough to flee. But what?

He was not sure; and suspected that he would rather not remember, not just now.

He lurched to the end of the tunnel, climbed down metal steps and pushed a door aside. He stood gazing out over the plantings, in a warm breeze in which he took no pleasure at all. It was daylight and, except for a distant swish of hovercar traffic there was no sound of anyone around.

It was too soon to judge, on the basis of less than twenty-four



hours' experience. And no doubt his troubles were all his own fault. But Forrester was ready to concede that life with the Forgotten Men was not his place in this new world either.

If he had any place at all.

But as he was alive, he had no choice but to go on living. Forrester sighed, turned and walked into the ruby metal arms of a copper. "Man Forrester," it said, staring into his eyes, "good morning and I have a message for you."

"Nothing I want to hear," said Forrester. "Let go."

"As to that," said the copper, "I do not know, Man Forrester, but the message is as follows: Will you care to accept re-employment by Sirian Four?"

"No!" shouted Forrester. "My God, no!"

The copper said courteously, "Thank you, Man Forrester," and strolled away.

Forrester stood glowering after it. Re-employment! He'd rather work for a cobra. Much rather; a cobra was at least from the right planet, and if it struck it would kill only a single man, not a world; and at that moment, looking up for what seemed to him no particular reason, a glimpse caught out of the corner of the eye, perhaps a shadow, Forrester saw a flyer overhead.

He froze, turned, started to run.

The crazy Martian? Some other enemy? He didn't know, and didn't care to learn.

But the aircraft was not after him.

It hesitated above him, and Forrester saw a face looking out — a face which he recognized, although not complete with an identity as yet. The eyes looked at him thoughtfully.

Then it dipped and slid away, and landed.

It landed across the hoverway, and the man got out. He was carrying something that looked like a whip.

Around the pylons of the tapering bright yellow building across the hoverway Forrester saw Whitlow walking toward him. So did the man from the aircraft. He was waiting for Whitlow. He stood there, politely poised, while Whitlow ambled across the grass, and turned and saw him.

Whitlow never had a chance to run.

The thing that looked like a whip was a whip. The man seemed to shake it gently, and its tip hissed out to touch Whitlow, and curled around his neck, and flung him violently to the ground.

The man pulled back with the whip, an expression of eager pleasure on his friendly face; and Forrester recognized him. It was their benefactor, the spaceman

back from his right-angle flight. Over the *whush* of the hovercars Forrester could hear Whitlow scream. Whitlow tried frantically to get up, still screaming, and was slashed to earth again; tried again, and shook as the whip flicked blood from his neck; tried again, and was thrown down; and stopped trying.

Forrester turned and ran, as fast he he could run.

He was sobbing. I have a *right* to be, he thought, half crazed. No one could watch a friend whipped to death unmoved, even if death were only temporary. And for Whitlow it would not be temporary, for he was a Forgotten Man, without hope. Like Forrester.

He stopped.

There ahead of him was another flyer, and outside it was something that glistened and shone. It looked a little like an atom-bomb cloud, a little like an ice-cream cone made of glittering chrome. It rested on ducted jets that swept it across a bed of storm-tossed poppies toward Forrester, fast, so fast that he could only stare at it. For inside it, behind an inset band of crystal, was a ring of staring bright green eyes.

It was a Sirian. His Sirian. And it was reaching out to touch him with something that glittered and stung.

## XVI

Forrester laughed to himself, staring down at the bright golden countryside below him.

The voice from behind him said, "Dear Charles, you're an idiot."

He turned, grinning. "Because I'm laughing, Adne? It's just that it was such a stupid mistake."

"Oh, it was all of that," she agreed. She still stayed inside that foolish space suit. It nettled Forrester. It was bad enough that he could have been so panicky and confused as to think her a Sirian, but at least she could come out and sit beside him on this flight they were taking to — to —

"I forget where we're going," he said apologetically. He closed his eyes and rubbed them. He must have had an even worst hangover than he thought.

"Sweat, sweet! You can't remember anything."

"I wish you'd come out and talk to me."

"Talk?" Her laugh was gently mocking.

"All right, I wish you'd come out and —"

"Charles! How fast you're getting over your kamikaze ways! A week ago you wouldn't have talked like that."

"I wouldn't?" Forrester con-

templated the thought. He was honestly puzzled; he couldn't really remember what he would have talked like a week ago. He sighed and leaned back, staring into Adne's lovely, bright green eyes.

He felt dizzy, sick and extremely confused. He wondered if his mind was breaking down — not that it would have been any wonder if it were. Certainly he had been through enough. He felt tired. He felt both sleepy and taut; like an insomniac; sitting there, watching Adne's expression behind the band of crystal in her wild spacesuit, he was almost fainting from fatigue. Or something like fatigue. Little bolts of pain struck at the base of the skull, muscle spasms knotted his neck muscles. His eyes were gritty and sore. But when he closed them they sprang open again; he felt a flush of strength into his body, and sat up — and was at once dizzily weary again. It was confusing. It was also frightening. He found minutes passing that he had not marked; looked to see Adne regarding him, looked again and she was somewhere else, bending over something in her conical suit; but he had not seen her move. He thought objectively: I'm having delusions. It had been going on for some time. Had he not thought Adne was trying to stab

him with something like a hypo? Even thought that Adne was not Adne, but one of the aliens from Sirius, menacing Earth?

But it was all too complex for him to sort out, and he was dizzy and sick. He saw only flashes, heard only bursts of sound. The whir of the flyer's rotors; and a metallic whining of gears as a port was opened. Why was a port opened? What was he doing standing here on the ground, on a hot, baked flat place of parched dead grass? Why was Adne getting into it? He heard the rotors again, and looked out; they were still flying over the endless fields of food for the cities. But it was queerly night. He turned to ask Adne, but she was hiding from him. "Damn you!" he cried. Or sobbed, or perhaps both; but she didn't answer. He flung himself petulantly down on the seat. His head was splitting with pain. "Damn you," he whispered, and slept.

When he woke up the flyer was standing at the side of the hoverway. As near as he could tell, it was the exact spot from which he had taken off.

He staggered to his feet. "Adne?" he called.

But there was no answer, and in a way he had not expected one. He remembered parts of what had happened. It had been

confusing. It had lasted a long time — it seemed to be day again.

It was very strange that he had dreamed so complex and pointless a dream. Of course, that was assuming it was a dream. But even waking, there seemed to be no point to the whole experience; he could not think what should come next for him, and wandered out of the flyer.

When he was standing on the grassy border of the hoverway he realized he was also ravenously hungry.

Strangely, the practical problem that presented was almost a relief. He searched his pockets, to see what might be left of the largesse from his friend, the whip-murderer.

Nothing.

But he had expected that, and he did what he knew he had been going to do all along. He headed for Adne's condominium.

Of course, she might not have been in, or she might not have admitted him. But she was. And she did. She didn't act too happy about it, though. "All right," she said, "come on in."

He sat down, ill at ease, aware that besides being hungry, and hungover, he was also far from clean. He cast about in his mind for something that would give her a chance to invite him to eat.

"I had a funny experience," he said.

She grunted over her shoulder, fingering her joymaker and watching the view-wall.

"I thought you were with me on a trip yesterday," he said. "You weren't, were you?"

"Charles, will you shut up a minute?" Her attention was on the wall. It glowed into life and showed a scene of dried, seared grasses, and a place where something heavy had ground into the earth; while a voice was saying in sonorous mourning:

"— escaped orbital patrols and must be assumed to be on its way to Sirius itself. No information is available as to how the Sirian managed to avoid the built-in electronic defenses against escape. There must have been human complicity to carry the alien to the site of the disused space vessel, but no joymaker monitors have registered any such event. The implications, of course —"

Adne turned to him, her face blank. "Sweat!" she cried. "That's terrible.

"What did you want to ask me?"

"Oh, nothing. Something about whether or not you were with me yesterday," said Forrester, "but I don't have to. It wasn't you. I know who it was now."

## TO BE CONCLUDED

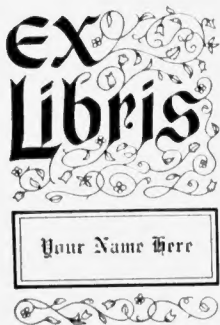
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